Dear Class of 2023:

WELCOME TO THE UNIVERSITY OF MINNESOTA!

Undoubtedly, you have seen the words “Driven to Discover” around campus and noticed the “What Drives You?” posters. It’s our way of expressing what we stand for at the U of M. The University is about discovery – the discovery of a brain cap that makes it possible to control computers with only your mind, the discovery that bacteria can generate electricity, or the discovery of new technology, such as robots designed to protect troops from harm. But discovery at the U is also about the discovery you are embarking on to find your place in the world – who you are, what you value, what you aspire to be. We are here to help you with these important discoveries.

This booklet will introduce you to an exciting array of small courses designed just for you, the Class of 2023. Studies from around the country have repeatedly shown that students do well in college and enjoy the experience more when they get to know faculty members and other students. Freshman Seminars are designed to help you do just that. They are limited to 15 to 20 students, so you will have a real opportunity to get to know other students in your class and to interact with a faculty member who will guide you and help you make the adjustment to college.

This is a wonderful opportunity to explore new areas or to test your interest in something you might eventually choose as a major. There are no prerequisites for any of these courses – except a willingness to learn, participate, and be open to new ideas and approaches. If you are in the University Honors Program, any Freshman Seminar you take will also count as an Honors experience.

So open your mind, explore the richness the University has to offer, learn what drives our faculty, and discover what drives you!

Leslie Schiff
Associate Dean for the University Curriculum
Office of Undergraduate Education
What is a Freshman Seminar?

A Freshman Seminar is a small, discussion-oriented class that is designed just for first-year students. Faculty who teach Freshman Seminars have developed each class around their particular interests, and students are able to learn in a small class environment from an expert in the field.

What to expect in a Freshman Seminar:

• A small class (15-20 students) of first-year students where it is easier to talk, participate, and engage in class discussions
• Faculty who create these courses specifically for first-year students and are excited about the subject
• An opportunity to work with faculty who will help you better understand how to succeed academically at the University of Minnesota

Tips for success in a Freshman Seminar (and all your classes!):

• Come to class prepared with readings and assignments completed
• Express your thoughts and opinions by participating in group discussions
• Visit your professor during office hours
• Get to know your classmates
• Ask plenty of questions

If you have questions about any of the Freshman Seminars, contact the academic advisor.

How to Search Online for Freshman Seminars

1. Log onto MyU (myu.umn.edu) and click on the Academics tab.
2. Under Planning, select Class Search.
3. Once you have entered Class Search, verify that Twin Cities/Rochester is selected in the Institution field. Then choose either Fall 2019 or Spring 2020 in the Term field.
   - Note: Freshman seminars are unique because you can register for a spring semester course at the same time as you're registering for your fall courses. Make sure to check out both Fall 2019 and Spring 2020 for freshman seminars that interest you!
4. Then, in the Course Attribute field, select Freshman Seminar.
5. At this point, if you click Search, you will get a list of all freshman seminars being offered during the selected semester. It is helpful to select Show Open Classes Only before clicking Search if you only want to view courses that still have available seats. If you are interested in putting your name on a wait list for a course, do not select Show Open Classes Only. In order to narrow down your results, you can also use the Additional Search Criteria section to find seminars that fit into certain time slots or are taught by specific instructors, etc.
6. After you have generated a list of seminars that fit your desired parameters, you can click on the section or class number to view more details about the class, including a brief description.
7. To register for a seminar, click Select on the right hand side of the course information and follow the instructions to add it to your Enrollment Shopping Cart.
Freshman Seminars Abroad

Several of the Freshman Seminars listed in this booklet also include a study abroad opportunity. Freshman Seminars Abroad are a great introduction to studying abroad! These seminars combine on-campus instruction during spring semester 2020 with a study abroad component over spring break. You will receive three credits for a Freshman Seminar Abroad, and many fulfill a liberal education requirement.

To participate, apply through the Learning Abroad Center. There are deadlines to register for Freshman Seminars Abroad. For more information, visit: http://www.umabroad.umn.edu/programs/fsa.php or contact Lindsey Lahr at lahr0039@umn.edu or 612-625-9370.

Spring 2019 Freshman Seminars Abroad:

AHS 1901: Health in the Tropics: Humans, Animals, and Ecosystems, page 11
Karin Hamilton, Veterinary Population Medicine
Study Abroad in Panama

BIOL 1904: Tradition and Innovation in Iceland, page 15
John Ward, Plant Biology
Study Abroad in Iceland

DES 1406W: Design in London and Edinburgh, page 22
James Boyd Brent, Graphic Design
Study Abroad in England and Scotland

EDHD 1909W: Galileo on Trial in Italy, page 23
Laura Coffin Koch, College of Education and Human Development
Study Abroad in Italy

FW 1901: Coral Reef Management in Belize, page 27
Jim Perry; Fisheries, Wildlife, and Conservation Biology
Study Abroad in Belize

This symbol indicates a Freshman Seminar Abroad
### 2019-20 Seminars Alphabetical by Designator

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<thead>
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<th>Designator</th>
<th>Year</th>
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<td>Democracy under Threat in Times of Populism and Racial Nationalism</td>
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<td>Ballooning: Design, Build, and Fly</td>
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<td>Mind and Muscle: Philosophy and the Martial Arts</td>
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<td>ANSC</td>
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<td>The Journey of Food in Your Body - Digestive Physiology</td>
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<td>Changing Human Adaptations</td>
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<td>Time: Now and Then</td>
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<td>From “O Brother Where Art Thou?” to “12 Years a Slave”: American Cinema and American Roots Music</td>
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<td>The Ordinary Business of Life: Issues in Business, Government, and Macroeconomics</td>
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<td>1913</td>
<td>Seeing and sensing the Mississippi</td>
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<td>Ideas Worth Spreading: Digging into TED Talks</td>
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<td>Children and Other Talking Animals: Animal Tales in (Mostly) Children’s Literature</td>
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<td>1943W</td>
<td>Science, Technology, and Society</td>
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<td>Issues in 21st Century America: Diverse Christian Perspectives</td>
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<td>Sharing/Stealing Culture: Copyright, Creativity, and Capitalism</td>
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<td>Film, Art, &amp; Memory: Post-Holocaust Berlin</td>
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<td>Community/Media/Activism: Building Resilience Through Cinema</td>
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<td>What’s Money REALLY About?</td>
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<td>1912</td>
<td>Art Laboratory: A Place to Play</td>
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<td>TH</td>
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<td>Cyborgs and Hackers: The Ethics of Digital Life</td>
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<td>WRIT</td>
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<td>Arguing with Authority: The Past, Present, and Future of Higher Education</td>
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### Seminars by Interest Area

#### Arts, Design, and Music

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#### Biological and Environmental Sciences

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<td>The Nature of Research: Is It For You?</td>
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*University of Minnesota | Twin Cities*
# Seminars by Interest Area, continued

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| VPM  | 1903 | Poison, Poisoning and Society | 42 |
| WRIT | 1935W | Writing Medicine | 42 |

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| ALL  | 1912 | Fashioning Islam in Literature and Culture | 12 |
| CHIC | 1913W | Food and Culture: Latinidad Through Food and its Rituals, Economies, and Politics | 19 |
| CSCL | 1912 | Fake News | 20 |
| DES  | 1406W | Design and Culture in England and Scotland | 21 |
| DES  | 1407 | Fashion and Feminism: Dressing for Change | 21 |
| EDHD | 1904 | Globalizing your Undergraduate Curriculum | 21 |
| EDHD | 1909W | Galileo on Trial in Italy | 23 |
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Humans, like all other species, are an integral part of the ecology of the earth. We display a series of adaptations that allow us to eat, grow, find mates, and raise offspring. How have human adaptations been modified over time; for example, as we spread out of Africa beyond the low latitudes? How do our adaptations change as we change our own environment? For humans, our interactions with the environment include a high dependence on sociality, technology, agriculture, trade, and today, fossil fuels. We will consider changes in human diets, methods of food acquisition, geographic distribution, and social structure from the earliest ape-like humans through the Stone Age on into the present day to explore how long humans have made a significant impact on the environment.

Martha Tappen is a paleoanthropologist with research interests in the reconstruction of early human behavior and environments, especially from the time of the earliest Stone Age. She has worked with hunter gatherers in the Congo on archaeological sites in France, the Congo, Ethiopia, and post-soviet Georgia. Currently, she is a principle investigator at the Homo erectus site of Dmanisi, Georgia, the earliest fossil site found out of Africa.
**Ballooning: Design, Build and Fly**

AEM 1301  
2 Credits  
Fall 2019

James Flaten  
*Aerospace Engineering and Mechanics*

Outer space, sometimes called the Final Frontier, has always been difficult to reach due to the tremendous expense of rocket launches and the limited number of launch opportunities. In this hands-on course we will hone spacecraft-building skills including microcontroller programming, soldering, and CAD, then design and build miniature spacecraft and use (relatively) inexpensive helium-filled weather balloons to carry them into the stratosphere (AKA ‘near-space’) which has many of the same physical properties (and view!) as outer space. The balloon launch and recovery will be a required day-long class activity on a weekend date late in the semester. (A primary date will be announced at the start of the semester but this activity is weather dependent, so the actual flight date may need to be flexible.) The remainder of the semester will involve data analysis from the balloon mission as well as discussions and activities associated with full-fledged (i.e. outer space) spaceflight, including the scientific accomplishments and engineering challenges of past, current, and future missions.

Dr. James Flaten is the Associate Director of NASA’s Minnesota Space Grant Consortium, a higher education program whose goals include promoting interest in space science and space exploration. Though housed in the Aerospace Engineering and Mechanics (AEM) department, Dr. Flaten’s academic background is actually in experimental physics and he has also taught many physics, astronomy, and basic engineering classes in the past. He particularly enjoys using high-power rocketry and helium-ballooning as low-cost means of giving students hands-on experience building and flying hardware.

**Aircraft: Design, Build, and Fly**

AEM 1303  
2 Credits  
Spring 2020

Chris Regan  
*Aerospace Engineering and Mechanics*

Now ubiquitous, powered aircraft flight is only little more than a century old. In this hands-on seminar, we will explore the fundamentals of flight through the design, flight test, and analysis of small, UAV aircraft. Initially, we will cover the history and fundamentals of flight through lectures and discussion, answering questions such as, “how do aircraft fly?” and “why do aircraft look so similar?” Then, working in small teams, you will design, build, and flight test an electric remote-control aircraft. You will analyze the flight tests to see if your aircraft performed as expected, write reports, and present on the results. Additional elements of the seminar may include lectures, discussions, and activities associated with aircraft, including the engineering challenges of past, current, and future aircraft.

Chris Regan is Director of the Uninhabited Aerial Vehicle (UAV) lab as part of the Aerospace Engineering and Mechanics department. The UAV lab, has developed and operates several small, uninhabited aircraft in support of a range of research activities. He previously worked at the NASA Dryden Flight Research Center conducting and leading research in controls and dynamics including aircraft modeling, aircraft flight control, and flight test techniques. Chris worked on many aircraft ranging from small UAVs, including X-48B and X-56A, as well as military transports and fighter based research aircraft.

**Black Reality Television**

AFRO 1911  
3 Credits  
LE: DSJ  
Fall 2019

Terrion Williamson  
*African American and African Studies*

Many critics date the summer of 2000, when Survivor and Big Brother quickly became ratings juggernauts, as the beginning of the contemporary reality television boom. Within a few short years, shows like College Hill, America’s Next Top Model, and Making the Band 2 began pushing the genre to centralize the experiences of black cast members and, today, reality shows that feature solely or predominantly black casts are among the most successful of the genre. For some people the proliferation of black reality television has been welcome, while for others it has been a major cause for concern, particularly given the complex history of black representation in US public culture. In this course, we will consider what is at stake in the cultural battles over black reality television, as well as how various intersecting modalities of difference such as race, gender, class, and sexuality affect the conditions under which black reality television programming is produced and consumed.

Terrion Williamson is an assistant professor of African American and African Studies with appointments in Gender, Women & Sexuality Studies and American Studies. Her research and teaching specializations include black feminist theory, twentieth and twenty-first century African American literature, black cultural studies, media studies, and racialized gender violence.
Health in the Tropics: Humans, Animals and Ecosystems

Karin Hamilton  
Department of Veterinary Population Medicine (VPM)

The future health of our world requires a generation of creative, motivated, and strategic thinkers who are prepared to collaborate across disciplines and sectors to proactively protect the health of human and animal populations and the environment in which they live. In this Freshman Seminar Abroad, we will learn about the challenges and opportunities of human, animal, and ecosystem health (One Health) in Panama.

During spring break, we will travel to Panama. We will visit Panama City, where we will examine the history of the Panama Canal, built just over 100 years ago, which greatly impacted world trade. In preparation for this great engineering feat, public health and sanitation programs were created to deal with numerous tropical diseases, including malaria and other health threats that not only benefited the builders of the Canal, but also the local populations. We will also visit the tropical rainforest and reef ecosystems of the Bocas del Toro archipelago, home to indigenous populations, host vast biodiversity, and are visited by increasing numbers of tourists. There, we will seek to understand the connectivity of human, animal, and ecosystem health in both tropical rainforest and reef ecosystems through exploration of: the culture and health of indigenous communities, the impacts and opportunities of ecotourism, and a variety of conversation efforts.

Karin Hamilton is an assistant professor in the Department of Veterinary Population Medicine (VPM). She has extensive experience working globally in 14 countries in health fields, and has led multiple student programs to Thailand related to global health, interprofessional/One Health, and intercultural development. She has previously led a Global Health program to Thailand multiple times, as well as the Freshman Seminar Abroad to Panama.

Mind and Muscle: Philosophy and the Martial Arts

Maki Isaka  
Asian Languages and Literatures

Japanese cultural history functions as an unusual suspect for our investigation of Japanese philosophy. In Japan studies, the term “philosophy” is typically thought to indicate Western-influenced philosophy in modern times (the late 19th century onward). Even when its pre-modern precursor is mentioned, discussion tends to focus on Shinto, Buddhism, and Confucianism as its matrices. Far beyond such realms, however, practitioners of artistic techniques—such as martial and performing arts—already engaged themselves in conceptualizing philosophical problems: “What is nature?” “What is our existence?” “What is knowledge and how is it generated and transmitted?” The list goes on, encompassing such topics as “body” and “gender.” This course explores this phenomenon. We will read Miyamoto Musashi’s “The Book of Five Rings,” a famous treatise on swordsmanship written by a 17th-century Samurai.

Anyone interested in the topic and committed to learn is welcome. Aiming at Inclusive Design, it offers multiple options to enhance learning experiences.

While her home department is Asian Languages & Literatures, Maki Isaka is also affiliated with Gender, Women, and Sexuality Studies and Theater Arts & Dance. The trio represents the backgrounds of Isaka’s intellectual passion and research fields: Asian studies, gender studies, and theater studies. Another hidden theme common in her publications lies in Isaka’s interest in the concept of “membership.” How it is defined, on what grounds, what the concept does to the members and non-members thus defined. Isaka’s current research project is about female performers of a certain all-male musical genre. Although a big fan of theater, Isaka can’t do theatrical acting.
Fashioning Islam in Literature and Culture

ALL 1912
3 Credits
Spring 2020

Nida Sajid
Asian Languages and Literatures

Over the last few decades, the image of the Muslim veil has been variously idealized and politicized around the globe. This excessive (in)visibility has triggered multiple scholarly and public conversations about the relationship between collective faith and individual choice in Islam. The objective of this course is to investigate and go beyond these debates about veiling and unveiling to uncover complex aesthetic and political acts of self-fashioning undertaken by Muslim writers, filmmakers, and artists as they engage with and re-define processes of Islamic piety and global modernity. Through innovative readings of film, literature, and popular culture from a range of geographical sites and historical periods, this course highlights the importance of clothing and adornment in the formation of gendered identities, religious beliefs, and nationalist politics. From the Turkish Fez to the Indian Sari, we will explore how dress practices stitch together structures of power, displays of masculinity, and questions of women’s agency in different times and places. These explorations will be guided by an interest in identifying unconventional cultural sites for the staging and un-staging of “Muslim dress” and assessing the importance of fashion in stimulating gendered consumption and aesthetics.

Nida Sajid holds a Ph.D. in comparative literature and her research focuses on Muslim cultures of South Asia, gender studies, and postcolonial literatures. She has contributed to journals, encyclopedias, and anthologies on topics related to gender and sexuality, global intellectual history, and comparative literature. Along with teaching and research, she has also generated enthusiasm for Islamic fashion and dress practices with academic symposiums and public exhibitions showcasing the diversity and uniqueness of Muslim cultures around the world.

Strange Spirits: Monsters, Star Beings, and Other Mysterious Creatures in American Indian Literature

AMIN 1912
3 Credits

Carter Meland
American Indian Studies

Maybe you’ve seen a movie where the characters spot some strange creature moving through the dark woods of a shadowy night and one of them explains, “It’s a windigo. Native Americans say it eats human flesh.” Maybe you wondered what this monster is and what Native people think of it. Maybe you thought it strange that a film was using a creature from Native tradition to threaten non-Native characters. Maybe you thought using such a creature was a bit too similar to those old movies where “savage” Indians threaten pioneer families.

In this seminar, we explore what strange spirits like windigos, Sasquatch, or Star Beings (aliens) mean in Native and non-Native contexts. In Indigenous contexts, such stories carry knowledge about how to live ethically with the world. We will also examine texts by non-Natives that engage with the Native content of these stories, asking whether they engage with this content as knowledge or as entertainment. Our comparative examination raises important questions about the relation of colonialism to the appropriation of Native lands and cultural expressions.

Carter Meland is a novelist who teaches in the Department of American Indian Studies. His work examines the places where creative writing and critical thinking intersect and the ways we need to use imagination and Native philosophy to gain new perspectives on the challenges facing us in our social, cultural, and environmental lives. His novel Stories for a Lost Child was a finalist for a 2018 Minnesota Book Award. He loves helping students figure out how they want to tell stories about what they have learned, including what they have learned about the strange spirits that inhabit our world and our inner lives.

Baseball and American Culture

AMST 1912
3 Credits
Spring 2020

Timothy Face
Spanish and Portuguese Studies

To an extent not seen in any other sport, America’s National Pastime is intertwined with the very fabric of life in America, and this is reflected in the prominent place of baseball in American cultural production such as film and literature. On the one hand, baseball provides a means through which the American dream has often been viewed and has itself been viewed as an idyllic representation of that dream and all that is good about American culture. But on the other hand, throughout history baseball has also reflected many of the struggles seen in the broader society. Whether it be racism, the realities of war, the place of women, the labor movement and unionization, or any of a number of other issues, baseball has provided a view into societal issues - sometimes leading the way and shining a spotlight on the issues and sometimes lagging behind other parts of society in dealing with the issues. Throughout this course we will look at these different sides of the connection between baseball and American culture.

Timothy Face is a professor of Hispanic linguistics who works with the sound system of Spanish and its acquisition by native speakers of English.
The American Quest for Security
AMST 1918
3 Credits
Fall 2019
LE: CIV
Elaine Tyler May
American Studies
For more than half a century, Americans have been concerned about security - national security as well as personal security. What do Americans mean when they talk about security? What are they worried about, and how do they try to keep themselves safe and secure? The quest for national security has taken shape at the level of foreign policy and military engagement. At the same time, Americans have endeavored to achieve their own safety and security through political and personal efforts. This seminar examines the various ways that citizens have addressed the issue of security in their own lives, whether their fears have been justified, and whether their efforts have kept them safe. The goal is for students to understand the issue of security in a historical context, and to enable them to be effective citizens in a world that often feels dangerous.

Elaine Tyler May is Regents Professor of American Studies and History at the University of Minnesota. She was President of the Organization of American Historians (2009-2010), and President of the American Studies Association in 1995-96. She is the author of several books, including Fortress America: How We Embraced Fear and Abandoned Democracy, (2017), Homeward Bound: American Families in the Cold War Era (1988, new edition 2017), and co-author of a college-level United States history textbook, Created Equal: A History of the United States.

The journey of food in your body - digestive physiology
ANSC 1901
3 credits
Milena Saqui-Salces
Department of Animal Science
In this course we will review how the digestive system works, and how nutrients are taken up from food by our bodies. We will discuss fast and slow food, diets, bugs and poop. We will run some fact-checking to popular internet claims and guide you on how to distinguish well-supported information from bogus. You will also learn to search and read scientific papers and the basics of technical writing in the field.

Dr. Saqui-Salces holds a PhD in Biological Sciences from UNAM (Mexico) and joined the University of Minnesota in 2013. Her research focuses on gastrointestinal function modulation by diets and supplements. Dr. Saqui-Salces teaches Nutritional Physiology (graduate level) and Research Proposals: from ideas to strategic plans (undergraduate and graduate levels).

Time: Now and Then
ANTH 1912
3 Credits
Fall 2019
David Valentine
Anthropology
The topic of the class is "time" and our goal will be to understand how time is far more complicated than we might think. Indeed, time is a problem for us: as an experience, as a way of explaining the material world, and as a political and historical phenomenon. Though we cannot go back in time, human experiences of time are not linear or straightforward: memory, prediction, nostalgia, boredom, and regret on the one hand and myth, fantasy, hope, and science fiction on the other, pull us back and forth across time lines and scales. Physicists tell us that time is relative, that it is not a thing or a happening, that it may simply be our name for a structure we cannot comprehend. Meanwhile, in the historical time of Earth, different cultural traditions have experienced, explained, and used time in radically different ways. Moreover, as Europeans colonized the globe, encounters between different kinds of time have produced political effects that remain at the center of conflict, exchange, and inequalities. This course takes an anthropological perspective on time, drawing additionally on readings from history and geography to explore why it is we find time so very troublesome.

David Valentine is an associate professor of anthropology. He received his PhD in linguistic and cultural anthropology from New York University in 2000. His dissertation work was on the politics, histories, and meanings of the category transgender. His book, Imaging Transgender: An Ethnography of a Category (Duke University Press 2007), was awarded the Ruth Benedict Book Prize (SOLGA/American Anthropological Association). His current research is a 5-year longitudinal study of imaginings and narratives of the future among commercial outer space entrepreneurs, funded by the National Science Foundation.

Biology of Human Diversity
ANTH 1919
3 Credits
Spring 2020
Kieran McNulty
Anthropology
This course explores the biological dimensions across which modern humans differ. Of all primate species, Homo sapiens has, by far, the greatest distribution, inhabiting nearly every part of the terrestrial earth. Variation within our species is both substantial and complex. Widely dispersed populations tend to differentiate through the process of adaptation to local environments and the accumulation of random genetic changes. However, complex patterns of gene exchange and culturally-mitigated migration can overwrite endemic variation, keeping our species genetically integrated and leaving traces of the prehistoric spread of populations around the world. We explore what it means to be human by examining the diversity of biological adaptations within our species. What features are unique to certain populations? What features unite us as a species? We will also work through the complex issues related to concepts of human race, and discuss the biological underpinnings of human variation.

Kieran McNulty is a biological anthropologist and paleontologist who specializes in ape and human evolution. His research focuses on mechanisms of cranial diversity and features both three-dimensional modeling and paleontological field work. Professor McNulty is interested in exploring with students the many axes of human variation.
This seminar focuses on the ways in which popular culture (movies and other visual media) presents and comments upon southern American “roots” music. Although the music had deep roots in the American past, it also underwent dramatic transformations with the coming of industrial capitalism to the South and as a result of the commercial recording process itself, especially in the 1920s. This music continues to shape popular music today, and it continues to be a focus of cinematic attention. In this seminar we will focus on three sets of issues. First, we will consider the music in terms of the historical contexts that shaped it. Second, we will consider the question of how popular cinema and documentary films interpret (in sometimes problematic ways) this music, and what the politics of those representations might be. Third, we will attempt to understand musical genres and the movies in which they are featured in relation to the production of race, class and gender, and the experience of inequality in the United States.

Gloria Goodwin Raheja is an anthropologist with research and teaching interests in South Asia and in the roots music of the American south. She has done research in rural north India and has written on a variety of topics in the anthropology of India. A current project focuses on music, race, and industrial capitalism in 1920s Appalachia, and another is centered on the Appalachian ballad tradition and its resonance in contemporary American music. She teaches courses on anthropological theory, South Asian society, the politics of culture, and the social and cultural contexts of the production and reception of American vernacular music.
The world of economics is sometimes referred to as the study of the ordinary business of life. In this course we will discover, reflect on, and teach ourselves about a selected group of topics in the fields of business management and economics. The seminar is “chunked out” into four unique parts. While the first quarter of our meetings will be on business and economic history to provide context (the “Economic Revolution”, the Federal Reserve System, and the role of government in the economy), the second, third and fourth quarters of our class discussions will analyze both “micro” and “macro” issues related to the domestic and world economies (economic growth, income inequality, the New Economy, and globalization). We will also read and solve The Fatal Equilibrium, a mystery novel that highlights several basic economic principles.

Gary M. Cooper is a Senior Academic Advisor in the College of Food, Agricultural and Natural Resource Sciences and a Teaching Specialist in the Department of Applied Economics. He has received university teaching and academic advising awards for his work with students and faculty.

Seeing and Sensing the Mississippi

ARTS 1913
3 Credits
Fall 2019

Diane Willow

Art

This fall we will focus on the Mississippi River. The site of an urban National Park, the Mississippi River flows through campus. Within view of all who travel between the east and west banks of the University of Minnesota, it immediately captures our imaginations. We will synthesize multiple perspectives gained from our experiences on a river boat ride, launching aerial cameras, recording underwater views, and engaging in conversations with guest artists, architects, composers, scientists, and historians. This range of creative media and research processes will reveal the dynamic mix of nature and culture along the urban edges of the Mississippi River. This interdisciplinary seminar is an invitation to explore how we each develop attachments to particular places and how this process sparks a sense of connection and community. Meet students with a wide range of interests and backgrounds while working on individual and collaborative projects that introduce you to creative ways of using research, media and imagination to communicate your sense of the Mississippi River and how place matters.

Diane Willow is a professor in the Department of Art, in the area Interdisciplinary Art + Social Practice. “By any medium necessary” best describes her process. With internationally and nationally commissioned public art works and exhibitions she engages media as diverse as bioluminescent plankton, interactive architectural facades, and tangible sound.

Tradition and Innovation in Iceland

BIOL 1906
3 Credits
Spring 2020
LE: GP

John Ward

Plant and Microbial Biology

This course is open to first-year students from all colleges and will appeal to students with a broad interest in history and in factors that contribute to innovation. Students will have opportunities to consider how solutions to problems facing society and the broader world require creativity and innovation, and how these concepts can be realized in different cultural contexts (Iceland and United States comparison). Understanding historical innovation is an important lens with which to examine current innovation and to understand the cultural context of how society has changed over time. Students will learn about innovation in a broad context. This course will examine Icelandic innovation. It will consider how the society was able to survive multiple famines, plagues, volcanic eruptions, pirate raids, and wars to become one of the most innovative countries in the world. The course will examine how the education system and government policy contribute to innovation and the benefits of innovation in business.

John Ward is a professor in Plant and Microbial Biology and Associate Dean for Undergraduate Education in the College of Biological Sciences. He teaches Botany and Plant Physiology and has previously taught study abroad courses. He is interested in sharing Iceland’s history with students and the unique role that Iceland is playing in tourism, human genealogy/genetics, and renewable energy.

Curing Cancer

BIOL 1911
1 credit
Fall 2019

Colin Campbell

Department of Pharmacology

The objective of this seminar is to develop a basic understanding of the molecular origins of cancer, how it is currently treated, and the exciting efforts to develop new, more effective anti-cancer drugs. We will read and discuss two recent books, The Emperor of all Maladies by Siddhartha Mukherjee and The Immortal Life of Henrietta Lacks. Each class session will involve interactive discussions and a lively exchange of thoughts and ideas.

Colin Campbell is an associate professor of pharmacology. His doctoral and post-doctoral training occurred at Boston University, the University of Illinois at Chicago, and the Albert Einstein College of Medicine in the Bronx, New York. In addition to directing the graduate program in pharmacology, he directs a cancer biology research group and teaches undergraduate, graduate, and professional students.
This seminar will provide students and faculty an opportunity to explore the art of photojournalism and/or documentary photography. Students and faculty will take photographs on the University campus or the surrounding neighborhoods and then each person will assemble their photographs into a coherent essay. The seminar will include social themes, and will have a strong writing component, as well as the obvious focus on photography.

Alex Lange received his Ph.D. in nutritional biology from Cornell University. His research interests include diabetes, metabolite sensing and signaling, and metabolic enzyme regulation. Robert Roon is a veteran of more than 45 years of university teaching. His eclectic interests range from neuroscience and nutrition to the origins of human life and Northwest Coast Native American art. He also sings in a men’s choral group and co-parents his grandson. He has been taking photographs for 50 years and in the past few years, he has averaged 20,000 photographs per year.

Robert Roon is a veteran of more than 45 years of university teaching in the area of biochemistry. His eclectic interests range from neuroscience to Northwest Coast Native American Art. One guiding principle of his life has been the firm conviction that “man shall not live by bread alone.” That phrase from Matthew 4:4 has a non-literal meaning that transcends any specific religion. It suggests that in order to live a healthy and productive life, it is essential to have some creative outlet that connects us to our biological heritage. This runs contrary to the current tendency to interact with others and with the larger world via electronic venues.

The Nature of Research: Is It For You?

BIOL 1914
3 credits
Spring 2020

David Marks,
Plant and Microbial Biology

There will be two parts to this seminar. In the first part, students will meet with researchers from all levels from current undergraduates working in labs to faculty members, and we will discuss how and why each ended up in research. In the second part, students will participate in a research project funded by the National Science Foundation. Students will gain hands-on experience and use state-of-the-art techniques to address basic scientific questions concerning cell biology.

David Marks is an active researcher in the field of plant developmental biology. He uses the development of plant hairs, called trichomes, as a model system to study how cells in a multi-cellular organism become different from one another.

Genomics in Your Current and Future Life

BIOL 1915
1 credit
Spring 2020

Perry Hackett
Genetics, Cell Biology, and Development

In this seminar, DNA and genomes will be discussed in many contexts, including medical science (diagnosing a disease and finding miracle cures), crime scene investigation, ethics, the modification of life at every level on the planet, etc. Students will discuss their thoughts on a variety of controversial issues both online and in class. In addition to learning about how our understanding of DNA and genomes has infiltrated every aspect of society, students will develop their process of thinking about complex problems by writing short opinions and evaluating those of others in class. “Clickers” are used intensively in the course to determine how participants feel about certain positions on controversial subjects and to stimulate discussion of different points of view. All reading material will be furnished online, but students must buy their own clicker from the bookstore or elsewhere.

Perry Hackett is a professor of genetics, cell biology, and development. His career has focused on retooling genomes from bacteria to humans. He is especially interested in conveying to students the awesome possibilities of modern genetics and the importance of using data to find answers to the important questions that science raises.
Experimental Evolution

BIOL 1917
1 credit
Fall 2019

Mike Travisano,
Ecology, Evolution and Behavior

Life originated over four billion years ago. Since that time, evolution has shaped living systems, generating tremendous biological diversity. Experimental evolution is a dynamic approach to investigating life, examining how and why biological systems change over evolutionary time. We will focus on how experimental evolution is done, what we have already learned, and the bright future for new research. Topics will include adaptive radiation, infectious diseases, the genetic basis of phenotypes, speciation, and the evolution of multicellularity. Readings will be primary literature and review articles, to be discussed every meeting. Toward the end of the semester, students will propose their own experimental evolution study based upon the readings, class discussions, and meetings with faculty.

Mike Travisano studies the origin of biological complexity using experimental evolution with microbes. Their current research is funded by NASA for understanding the origins of life.

The Nexus Between Art and Biology

BIOL 1921
2 credits
Fall 2019

Robert Roon
Biochemistry, Molecular Biology, and Biophysics

This seminar will explore the many and diverse interactions between art and biology. The topics covered range from the portrayal of biology in classic art, to the use of artistic venues for studying and remediating environmental problems, to the utility of photography, painting, sculpture, and other art forms to explore levels of biology ranging from molecular and cellular structures to landscapes. The course includes hands-on creation of artistic biological objects. Topics will be explored using recorded media and presentations by students, the instructor, and invited speakers to cover novel topics at the art/biology interface.

Robert Roon is a veteran of more than 45 years of university teaching in the area of biochemistry. His eclectic interests range from neuroscience to Northwest Coast Native American Art. One guiding principle of his life has been the firm conviction that “man shall not live by bread alone.” That phrase from Matthew 4:4 has a non-literal meaning that transcends any specific religion. It suggests that in order to live a healthy and productive life, it is essential to have some creative outlet that connects us to our biological heritage. This runs contrary to the current tendency to interact with others and with the larger world via electronic venues.

Science and Politics of Genetics and Reproduction

BIOL 1942
3 credits
Fall 2019
LE: TS

Murray Jensen
Biology Teaching and Learning

The Science and Politics of Genetics and Reproduction is a seminar course where students read, discuss, debate, and generally engage with a myriad of issues surrounding the science of genetics and the application of revolutionary technologies to human reproduction. Students will explore topics and controversies relating to the past, present, and future of human sexual activity and human reproduction, and how reproductive technologies (such as in vitro fertilization) have helped shape our modern society. Birth control technologies will be related to a long and troubling history of eugenics, which includes legal events such as mandatory sterilization laws, and the impact of “the Pill” on society (from individual women and families to large institutions such as the Catholic Church and the US Government). Through the use of both fiction and non-fiction literature, students will learn the details of current scientific breakthroughs such as “designer babies.” This course aims to engage students in an exploration of their personal beliefs about the roles of science, the government, and even religious institutions on human reproductive rights.

Murray Jensen is a Horace T. Morse Distinguished Teaching Professor in the Department of Biology Teaching and Learning. His teaching areas include entry-level biology, human anatomy and physiology, and graduate level courses in STEM teaching and learning. His research areas focus on developing teaching strategies within active learning environments, and in 2007 he earned the Society for College Science Teachers Outstanding Undergraduate Science Teacher Award.

Ideas Worth Spreading: Digging into TED Talks

CHEM 1901
3 credits
Fall 2019

Christy Haynes
Department of Chemistry

TED talks are among the most widely available forms of intellectual discourse. In these short oral presentations, speakers share thoughtful and thought-provoking insights on a range of topics. In this course, we will focus both on discovering our own passions and how to communicate these passions effectively to a broad audience.

Christy Haynes has been a member of the Chemistry faculty at the University of Minnesota since 2005. She earned her Ph.D. at Northwestern University and was a NIH postdoctoral fellow at the University of North Carolina, Chapel Hill before coming to UMN. She has taught graduate and undergraduate courses including this freshman seminar, general chemistry, analytical spectroscopy, and process analytical chemistry. Her research interests include single cell measurements relevant in immunology and toxicology as well as biomaterials development.
Chemistry in the Kitchen

CHEM 1903  
3 credits  
Fall 2019

Renee Frontiera  
Department of Chemistry

This seminar will look at the chemistry behind cooking and baking. In this course, we'll cover topics such as coffee roasting, gluten formation, caramelization, "unscrambling" an egg, the science of ice cream, and molecular gastronomy. We will discuss some of the fundamental processes and chemical transformation that occur when we step into the kitchen. In addition to chemistry, this course will touch on interdisciplinary concepts from biochemistry, neuroscience, materials science, and physics.

Renee Frontiera is a McKnight Land-Grant Assistant Professor in the Department of Chemistry. She earned B.A. degrees in Chemistry and Chinese at Carleton College, and received a Ph.D. in Chemistry from the University of California-Berkeley. She was a postdoctoral fellow at Northwestern University before coming to UMN in 2013. She has taught graduate and undergraduate classes in quantum mechanics and spectroscopy. Her research involves using light to probe chemical reactions occurring in nanomaterials, in solar cells, and in cellular membranes.

DNA?

CHEM 1908  
3 credits  
Fall 2019

Michael Bowser  
Department of Chemistry

DNA, the molecule of life. DNA is found in every known living organism yet is the very molecule responsible for the incredible diversity found in life. Considering the central role DNA plays in biology its impact on science, industry and society is not surprising. What may be surprising is that it is only in the past several decades that technological advances have allowed us to begin to fully realize the potential of genomics research. As with many advances in science this quickly growing field has raised a number of social and ethical challenges. This course will examine a range of DNA related topics considering scientific, historical, social and ethical perspectives. Topics will include the discovery of DNA, DNA in forensics, technology of DNA sequencing, genetically modified foods and personal genomic testing.

Michael Bowser has been a member of the Chemistry faculty at the University of Minnesota since 2000. He earned his Ph.D. at the University of British Columbia and was a postdoctoral fellow at the University of Florida. He has taught graduate and undergraduate courses including those related to analytical chemistry and biotechnology. His research interests include discovery of functional DNA molecules, adipocyte signaling and microfluidics.

Chemical Engineering & Society

CHEN 1901  
1 Credits  
Spring 2020

Samira Azarin  
Chemical Engineering and Materials Science

The goal of this freshman seminar is to provide students with a background on what chemical engineers do and how their skills are being employed to address some of the most pressing technological issues in society today.

Samira Azarin received her B.S. in Chemical Engineering from the Massachusetts Institute of Technology and her Ph.D. in Chemical Engineering from the University of Wisconsin-Madison. She is currently an Assistant Professor of Chemical Engineering and Materials Science. Her research program utilizes biomaterials and tissue engineering strategies to restore function of diseased tissues and halt the spread of cancer.
Food and Culture: Latinidad Through Food and its Rituals, Economies, and Politics

CHIC 1913W
3 Credits
Writing Intensive

Karen Mary Davalos
Chicano-Latino Studies

There are few things more basic and bonding between humans than making and sharing food together. To offer food and drink is a gesture of hospitality throughout the world. When we cook and eat, we can traverse our family’s generations and migrations through and across regional and national boundaries. By understanding the practices surrounding someone’s food, we can come to understand a great deal about their culture. Indeed, food is often a site of cultural fusion and hybridity, indicating the human ability to share, adapt, and change. Food, cooking, eating, and the rituals surrounding them reflect and are informed by ethnicity, race, gender, sexuality, nationality, migration, and class. For these reasons, food is an excellent topic through which to explore intersectionality, empowerment, and cultural memory - three major topics in Chicano/o and Latinx studies.

This course is a study of food as an integral part of human experience, but particularly the experiences with food across latinidades, social groups of Latin America living in the United States. We study food as a form of cultural expression but also as a mechanism of power and inequality. As such, we examine topics such as the food service industry, farm worker organizing, food insecurity, cultural appropriation, and agri-business and food production. Each of these topics focus our attention on inequality and injustices, such as racism, sexism, hunger, and other difficult subjects. However, these topics also reveal resistance and agency among Latinos and Latinas, as well as Latinx people, the gender neutral term intended to include the wide range of gender identities among people of Latin American heritage living in the U.S. By understanding the labor and politics of the food industry, uneven access to food, and society’s expectations about Latinx cuisines, we come to understand the structural forces that generate notions of race, gender, sexuality, nationality, human migration, and material inequity. Through our sharing of food, recipes, and the stories behind them, particularly the foods prepared for días de los muertos (trans: days of the dead) we will gain understanding of our diverse experiences, looking at our past as well as our present, and the memories and structural conditions that shape our experiences. To deepen our knowledge, we learn from and engage with Latinx urban farmers and come to appreciate the Indigenous Mexican cultural values for the environment and sustainability.

A cultural anthropologist and interdisciplinary scholar of Mexican American, Chicano, and Latino cultures. Her research currently focuses on the visual arts, although she has studied Latinx spirituality and ritual, such as quinceañeras and the Via Crucis in Chicago. As a digital humanities scholar, she is creating an online platform for Mexican American arts since 1848 and several first-year students have participated in this research project.

Children and Other Talking Animals: Animal Tales in (Mostly) Children’s Literature

CHIC 1908W
3 credits
Fall 2019
LE: CIV
Writing Intensive

Marek Oziewicz
Curriculum and Instruction

Humans and animals coexisted for millennia until humanity exiled itself from nature in order to rule it. In this course we look at the tradition of animal tales as the never-entirely-suppressed memory of this kinship and a hope for our future. We explore how animal tales have been used through the ages to reflect diverse ethical conceptualizations of the human relationship with animals and the natural world. We study the connections between children and/as talking animals. We read a range of animal tales and consider their meanings for the environmentally threatened global world.

Marek Oziewicz is the Henry Professor of Children’s and Young Adult Literature and Professor of Literacy Education in the Department of Curriculum & Instruction. As a child, he wanted to be a wizard but then he discovered books. He was never the same afterwards. Dr. Oziewicz studies storytelling as a technology for recalibrating minds, developing environmental awareness and justice literacy.

Science, Technology, and Society

CHIC 1943W
3 credits
Spring 2020
LE: TS
Writing Intensive

Bhaskar Upadhyay
Curriculum and Instruction

Why and how do science and engineering and technologies generate inequities, control over resources, and impact on economy and culture? Is any development that’s good for business also good for science? How do national politics influence what kind of science gets done and what technology gets developed? Do humans experience the value of science and technology or not? This course focuses on engaging students in these and similar other questions to understand the integral relationships between science, technology, and society. This course will introduce students to foundational concepts, themes, and questions developed within the interdisciplinary field of STS (science, technology, and society). For example, we will attempt to understand the relationships between two areas of science content (genes and genetics and nuclear energy), engineering and technology (CRISPR-Cas9 technology and atomic bomb), and society by exploring the experienced and potential benefits and harm of these developments. The readings allow learners to engage with science content as well as sociological and anthropological understandings of science practices; sociological and political perspectives on technological and scientific (techno-scientific) controversies; cultural, social, and philosophical relationships between technology, science, and humans; and politics of negotiations between scientific experts and the public and public policies.

Bhaskar’s research, teaching, and service are focussed on understanding and exploring the issues of equity, social justice, and agency in science teaching and learning. His research also includes international work in rural Nepal where he is exploring social justice, peace, and food security in the context of science teaching and learning.
**Issues in 21st Century America: Diverse Christian Perspectives**

**Timothy Face**  
*Spanish and Portuguese Studies*

The media often paints Christianity as a monotheistic belief system that is outdated, opposed to science, and intolerant of opposing views. Such a characterization paints Christians in unfairly broad strokes, ignoring their diversity of views. If the media portrayal is inaccurate, how does Christianity really interact with the issues we face in American society today? This is the theme we will explore in this course. We will focus our study on Christian beliefs as grounded in the Bible. We will see that Christians understand their holy book in different ways and come to very different conclusions about its application to societal issues. We will explore different Christian perspectives, noting how conservative and liberal Christians both ground their beliefs in biblical texts, yet hold opposing views. Gender, gay rights, abortion, and immigration are just a few of the topics we will explore as we investigate the interaction of Biblical Christianity with 21st century American issues.

Timothy Face is a professor of Hispanic linguistics who works with the sound system of Spanish and its acquisition by native speakers of English. Beyond his work in linguistics, he also holds a graduate degree in Christian Studies and is dedicated to the study of Christian theology and the diversity of Christian perspectives. He enjoys traveling, both in the United States and abroad, but especially loves Spain and wouldn’t mind having a second home there someday.

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**The Paradise Project**

**CLA 1913W**  
3 Credits  
Writing Intensive  

**Natalia Vargas Marquez**  
*Art History*

Welcome to Paradise! Or is it? Paradise is an idea that has captured the imaginations of peoples and cultures around the globe and throughout history. It has been the source of both magnificent beauty and horrifying violence. This multidisciplinary course is designed to explore the concept of paradise through lectures, discussions, and workshops with faculty experts from across the arts and humanities. From a wide array of perspectives, we’ll seek to balance critical analysis with creativity as we attempt to understand how the concept of paradise has both inspired and oppressed. We will also pay special attention to how the College of Liberal Arts at the University of Minnesota has been imagined and shaped as a paradise over its 150-year history. The course will culminate with a collaborative public arts project organized by the students who will engage in the challenges of creating paradise.

The course will be lead by a diverse group of faculty from throughout departments of Humanities and Arts in CLA. Each session a different expert will provide a unique take on the overarching topic of “Paradise.” Faculty from American Indian Studies, Music, History, Spanish and Portuguese, Theater and Dance, American Studies, Art History, Religious Studies, Anthropology, Art, and more will bring diverse perspectives and narratives to the class.

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**Homer’s Odyssey and Politics**

**CNES 1913**  
3 Credits  
Fall 2019  
LE: CIV  

**S. Douglas Olson**  
*Classical and Near Eastern Studies*

Homer’s Odyssey is the story of a man who returns from war to find a world much different from the one he left ten years earlier - and one that seems to have no place for him. On his way home, he lies to some, robs and murders others and, arguably through his own negligence, loses all his men. Once back on his native island of Ithaca, he re-establishes his authority as local strong-man through a mass killing of rivals. He is nonetheless emphatically a “hero” and the moral and political center of the story: what Odysseus does is (in the storyteller’s eyes, and those of most readers ever since) right and just. This seminar will use a close reading of the Odyssey, a study of Season One of the Netflix series House of Cards and of selections from Robert Caro’s biography of Lyndon Johnson, and extensive discussion of contemporary political and social events, to ask what sort of political and social world Homer’s poem imagines; how it formulates and discusses power and justice; how it encourages its audience to accept judgments about human behavior and “what is right” that may, upon reflection, seem horrifying; and what we are to make of this today.

Ever since he was a boy growing up in small-town Illinois, Douglas Olson has been interested in the world’s oldest books and the languages in which they are written. Most of his research as a Distinguished McKnight University Professor involves ancient manuscripts and lost Greek plays and poems. He still believes that Homer’s Odyssey is among the richest and most exciting stories ever told. Don’t worry if you’ve read the book before; it’s going to be different this time.

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**Sharing/Stealing Culture: Copyright, Creativity, and Capitalism**

**COMM 1912**  
3 Credits  
Spring 2020  

**Gilbert Rodman**  
*Communication Studies*

We will spend the semester looking at a series of case studies (historical and contemporary, local, and global) that help to reveal some of the multiple complexities -- cultural, social, political, economic, aesthetic, ethical, technological, and otherwise -- that lie behind a seemingly simple concept: copyright. Some of the major issues to be addressed include: internet filesharing/piracy and the difficulty of enforcing copyright in the digital age, racial borrowing/appropriation of cultural texts, practices, and styles, affective ownership (fans) vs. economic ownership (corporations), culture as a public good (the commons) vs. culture as private property (commerce), the use of copyright as a censorship tool, the politics of alternative forms of copyright (e.g., Creative Commons, open source, copyleft), and global/international discrepancies in copyright law/enforcement.

Gil Rodman is Associate Professor of Communication Studies. His research and teaching focuses on critical media studies and cultural studies, with specific emphasis on popular culture (especially popular music and the internet), the politics of race and ethnicity, media and technology, and intellectual property.
Reproductive Justices

COMM 1916
3 Credits
Fall 2019

Emily Winderman
Communication Studies

According to SisterSong, the term Reproductive Justice refers to the human right to maintain personal bodily autonomy, have children, not have children, and parent the children we have in safe and sustainable communities. While many immediately think of abortion when they consider struggles for reproductive rights, pregnancy termination is only one small part of the story. In this seminar, we will examine the history of social movements designed to provide women and men with reproductive autonomy, paying close attention to how those movements often failed to center the needs of those most marginalized. This seminar will address the various elements that impact family creation including medical racism, economic (in)security, comprehensive sexual education, and environmental protections. Students will learn how to critique and invent better reproductive rhetoric that more accurately accounts for the contextual complexities surrounding our reproductive moment.

Communication Studies Emily Winderman is an Assistant Professor in the Department of Communication Studies. Her work addresses issues of women’s reproductive health throughout history, including the Birth Control and Reproductive Justice movements. She is also a yoga teacher who loves crafting and lives in Minneapolis with her two very small (and very cute) dogs.

Survey of Applied Computer Science Using Computer Games

CSCI 1905
3 Credits
Fall 2019

Gary Meyer
Department of Computer Science and Engineering

Most people know that computer scientists write computer programs and those that study the subject learn that they also solve challenging math questions, but few people outside the field understand how computer scientists use these skills to solve practical problems. In this course you will employ a commercial game development environment to create applications that demonstrate concepts from applied areas of computer science such as artificial intelligence, computer graphics, robotics, and user interfaces. While you will be expected to apply knowledge that you learned in your high school algebra classes, you won’t have to write a single line of traditional computer code to create programs that are interactive, have high quality graphics, and are fun to use. You will come to understand how computer games work and get produced, but you will also gain an appreciation for how computer science can be employed to make the world a better and more productive place in which to live.

Gary Meyer is an associate professor in the Department of Computer Science and Engineering. During his career he has seen interactive computer graphics evolve from a technology that was only available in the research laboratory to a feature that is commonly available on laptops and smart phones. He teaches undergraduate and graduate courses in computer graphics, computer games, realistic image synthesis, and linear algebra. His research interests include the simulation and perception of color appearance.

Fake News

CSCL 1912
3 Credits
Fall 2019

Maggie Hennefeld
Cultural Studies and Comparative Literature

What is “fake news”? This term used to refer mainly to satires about the news, like The Daily Show and The Onion. Nowadays, “fake news” can mean absolutely anything from political humor, to profiteering click-bait, to blatant disinformation (i.e., “alternative facts”). Or, one can attempt to discredit fact-based reporting as “fake news” if you simply don’t want to hear it. In this course, we will think about the problem of “fake news” in its radical range of connotations. First, we will study humorous genres of news reporting, including literary farce, corporate hoaxes, mockumentaries, political parody, “truthiness”, and more. Second, we will investigate the history of journalism, from the nineteenth century crisis of “yellow journalism” to our present day, post-truth news media climate. For example, when did journalists begin to strive for ideals of objectivity, impartiality, and fact-based reporting? Finally, we will think philosophically about the very meaning of what is “fake” in relation to issues of truth, reality, authenticity, originality, mimesis, and representation.

Maggie Hennefeld is as assistant professor in Cultural Studies and Comparative Literature, where she teaches courses on comedy, film and media, and gender studies. She is the author of “Specters of Slapstick and Silent Film Comediennes,” a book about slapstick comediennes in silent cinema from the early 1900s, and the importance of comedy to early feminist movements. She hails from Brooklyn, New York, but has also lived in Philadelphia; Providence, Rhode Island, Toronto, and rural Japan--though never anywhere as cold as Minnesota. Her favorite places in the Twin Cities include the bike paths, the lakes, the Walker Art Center, and the Trylon Microcinema.
Do We Live in Fictional World?

CSCL 1913W
3 Credits
Writing Intensive

Christian Uwe
Cultural Studies and Comparative Literature

Most readers of Shakespeare know the line: “All the world’s a stage and all men and women merely players”. And, as a Spanish contemporary of his would add: Life Is A Dream. Surely, those celebrated writers are kidding, aren’t they?

Before one hastens to brush away such persistent statements as mere metaphors, one might want to understand the reasons of their very persistence and weigh them against the uses of fiction in daily life. Indeed, there is no shortage of works, characters, images or practices that blur the boundaries between life and fiction, or between the actual and the unreal. From the myth of Pandora to TV series such as Westworld, from Inception to commercial fiction, from childhood role plays to video games, from colonial expeditions and myths to cosplay it is the entire spectrum of our history, knowledge, actions, relations, leisure and even identities that are pervaded by fiction. The aim of the course is to take a fresh and critical look at fiction and its assumed opposition to reality and explore the ways, big and small, in which fiction and narrative imagination shape our lives and the world we live in.

Christian Uwe’s research hinges on African and Caribbean literature, literary theory as well as studies of signs and discourses. He has written on contemporary African and French Caribbean fiction and poetry and is currently working on book-long study of narrative forms in Francophone Africa. Despite his marked interest in fiction and fictional worlds, Professor Uwe spends most of his days on planet Earth.

Design and Culture in England and Scotland

DES 1406W
3 credits
Spring 2020
LE: GP
Writing Intensive

James Boyd Brent
Design, Housing, and Apparel

The aim of this course is to present design as an important aspect of our culture, a lens through which one can understand culture and society, and a driving force in moving culture forward, especially in times of change. Students will be encouraged to carefully observe and process the world around them, and to understand that this careful observation is also at the heart of the design process itself as it leads to better understanding of how and why things are made, planned, organized, and positioned in our world, and why these things are important. The two main themes of the course are the role of creativity in helping solve or at least to effectively respond to societal problems that arise in times of change, and how this underlying creative response to change is expressed through design.

James Boyd Brent is a professor in the Graphic Design Department in CDES at UMN. He is a printmaker and artist who is particularly interested in art and design in the United Kingdom, and has been leading study abroad trips for many years. He is drawn to both the physical and the imaginative aspects of places and how the experience of them can be simultaneously extraordinary and everyday.

Fashion and Feminism: Dressing for Change

DES 1407
2 credits
Fall 2019

Jean McElvain
Design, Housing, and Apparel

This class explores the sometimes problematic relationship between fashion and feminism. Literature from First Wave Feminism revealed visceral tensions between fashion and the perceived value of women in society. Fashionable dress was considered constrictive, submissive, and indicative of women’s diminished roles in both private and public realms. Second Wave Feminism, which took place approximately between 1963 and 1975, did not often address fashion directly. However, there were dramatic changes in beauty ideals during that time. Second Wave Feminism integrated into mainstream culture, with high profile authors such as Simone de Beauvoir, Frances Beal, Betty Friedan, and Gloria Steinem. This class focuses on formative feminist texts of Second Wave Feminism and explores how they began to shape mainstream fashion in the middle to late twentieth century. Clothing objects from the Goldstein Museum of Design’s permanent collection will be used to study social mores and norms associated with women’s changing roles in society. Contemporary movements will also be addressed, exploring the complex relationship between femininity and feminism.

Jean McElvain is the Associate Curator at the Goldstein Museum of Design (GMD) in CDES at UMN. She frequently publicly presents, lecturing on a variety of topics for organizations such as the Cable Natural History Museum, the Friends of the Minneapolis Institute of Arts, and the American Association of University Women. Over the past 15 years, she has developed a deep understanding of many facets of 19th and 20th century design; identifying relationships between everything from fashion to architecture.
Globalizing your Undergraduate Curriculum

EDHD 1904
3 credits
Fall 2019
LE: GP

Irene Duranczyk and Paul Edwards
College of Education and Human Development

EDHD 1904 is designed to engage domestic and international students in the multiple ways of thinking and doing for the expressed purpose of infusing a global perspective in their undergraduate education. Students will virtually engage with undergraduate students in Russia and China exploring what it means to be a student and adult participant on the world stage. Student will have exposure and experiences with international students, international student organizations, service learning, Collaborative Online International Learning (COIL), Massive Open Online Courses (MOOCs), Internationalization at Home (IaH), Study Abroad, and other international-based research, learning, or extracurricular processes and opportunities. This course will prepare students to embrace intercultural competency and its impact on self-awareness, social settings, course work, research projects, and career choices.

Paul and Irene have been engaged in assisting undergraduate students embrace a global perspective of their curriculum for many years. Paul and Irene over the past two years have engaged UMN undergraduate students in an Annual Video Conference with undergraduate students from Russia and China commemorating International Students Day, Nov. 17. Paul and Irene are posed to provide an experience for freshman students to explore how internationalization can be infused throughout their UMN curriculum and enrich their intercultural competency.

Galileo on Trial in Italy

EDHD 1909W
3 credits
Spring 2020
LE: GP
Writing Intensive

Laura Coffin Koch
Organizational Leadership, Policy, and Development

Galileo risked his career, his freedom, and even his life for science. In this Freshman Seminar Abroad, we will learn about Galileo, the conflicts he faced, and how his discoveries forever changed the world. Over spring break, we will travel to Italy. We’ll visit Pisa, home of Galileo, and climb the Leaning Tower of Pisa. We’ll explore the city of Florence and see one of Galileo’s first telescopes. In Rome, we will visit such places as the Vatican and the Church of Santa Maria sopra Minerva, which provided the backdrop to the end of Galileo’s brilliant career. While on campus, we will learn about 17th century Italy and re-enact the Trial of Galileo through debate and discussion.

Organizational Leadership, Policy, and Development “Laura Coffin Koch is a Morse Alumni Distinguished Teaching Professor of Mathematics at the University of Minnesota. Previously, she was the director of International Initiatives and Relations for the College of Education and Human Development. Professor Koch served as a United States Peace Corps Volunteer in the Philippines for three years where she developed a passion for teaching and traveling, and for each of the past fifteen years, she has taken groups of students to Florence, Italy, and Istanbul, Turkey as part of the University’s Global Seminar and Freshman Seminar Abroad programs.”
America in Crisis

ENGL 1912
3 Credits
Fall 2019
LE: DSJ

Ellen Messer-Davidow
English Language and Literature

America has a long history of injustice that lives on today in diverse forms. This course focuses on current crises in our economy, society, and (presumably democratic) government. We will analyze and try to solve some of the pressing questions. How did we end up with the largest wage and wealth disparities in the developed world? Why are low-income and even middle-income families struggling to make ends meet? Why did our K-12 education system, once in first place, drop behind education in all developed nations? Why does our healthcare system cost more yet provide less access and quality than systems elsewhere? In short, what forces created the gulf between the lived experiences of ordinary Americans and the high ideals articulated in the US Constitution?

Ellen Messer-Davidow has always been interested in how power is exercised for good or bad. She studies how government institutions and social movements, corporations and communities, ideologies and discourses operate in and on society. Any particular issue we choose to single out consists of many forces that are always in motion: material resource flows, regulatory policies, and routine processes are constantly disrupted by popular backlashes, legal challenges, and unforeseen accidents. Whether the exercise of power is intended to enable or constrain, it always sets things in motion again.

Jane Austen’s Afterlives

ENGL 1919
3 Credits
Spring 2020

Elaine Auyoung
English Language and Literature

More than two hundred years after her death, Jane Austen continues to attract new readers and fans across the globe. In this seminar, we will examine Austen’s novels alongside the far more voluminous body of scholarship, sequels, films, and fan clubs they have inspired. Besides considering Austen’s distinctive style, the centrality of her work in the history of the novel, and the literary and cultural context in which she wrote, we will explore the variety of ways in which the author and her novels have continued to be appropriated, adapted, and admired across the globe.

Elaine Auyoung is a McKnight Land-Grant Professor in the English Department and received her Ph.D. from Harvard University. She became obsessed with Jane Austen after reading Pride and Prejudice at the age of 12. Her early experiences as a reader inspired her own book, When Fiction Feels Real: Representation and the Reading Mind, which explores the techniques that writers use to bring us into intimate relation with fictional persons and worlds.
**Magnificent, Miniature Minds: From Dancing Honeybees to Cyborgs**

ENT 1906  
1 credit  
Fall 2019  

Karen Mesce  
Department of Entomology

Did you know that honeybees can be trained to recognize human faces or that desert ants can count their steps while walking? Have you ever thought about how an octopus "knows" how to match its body coloration to its marine environment and a monarch butterfly can find its over-wintering site located thousands of miles away? These are just a few examples of the extraordinary abilities that invertebrate animals display, reflecting the mighty power of their miniature brains and nervous systems. In this course, we will discuss the fascinating behaviors of animals with miniature brains and how their numerally-limited nervous systems enable them to do what they do. We will also explore how a deeper understanding of small-brain networks can inform us about how our own brains work, and how such knowledge can be used to engineer adaptive robots, cyborgs and smart machines. A major goal of this course is to widen one’s view of the importance of invertebrate animals in the field of neuroscience and gain an appreciation of the translational impact that this knowledge can have and will continue to have on our society and daily lives. Students will also be introduced to basic concepts in neurobiology and learn how small neural networks operate.

Prof. Karen Mesce is a member of several different Departments (Entomology; Neuroscience) and Interdisciplinary Programs (Graduate Program in Neuroscience; Institute for Engineering in Medicine). She is currently the President-elect of the International Society for Neuroethology, whose mission is to support the interests of those studying the neural bases of animal behavior. Karen began her career as a marine biologist, but soon came to the realization that her true passion was to understand how simpler nervous systems control the complex and fascinating behaviors of invertebrate animals.

**Insect Warriors**

ENT 1907  
1 credit  
Fall 2019  

Sujaya Rao  
Department of Entomology

Who are the most dangerous warriors on the planet? Who are the strongest and fastest athletes in the world? Who fought in a battle that involved billions of participants and left millions dead each month? And who is responsible for the most damaging biological warfare attack in history? The answer is around us every day, and beneath our very feet - INSECTS! Insects and their relatives have been on planet earth for millions of years, and have evolved an amazing range of weapons and strategies for combating their enemies, defending territories, fighting for mates, and guarding their offspring. Using incredible endurance, strength, and cooperation, insects provide an ideal template for warriors. From stag beetles dueling for mates to supercolonies of Argentine ants warring across California, insects truly are impressive combatants and athletes. But more than just fighting each other, insects have also been made into weapons. Throughout history, insects have been used in human warfare to frighten, incapacitate, and sometimes outright destroy armies or populations. During the crusades, beehives thrown over the walls of a city helped lead to a crucial victory, and in the midst of World War II, the Empire of Japan covertly bred millions of insects to spread epidemics amongst their enemies. And in a secret project code named "Operation Big Itch", the United States prepared to do the same during the Cold War. In this course you will learn how and why insects have evolved to be such formidable warriors, and the ways in which they have been used and will continue to be used as weapons of war. From robotic bee spies to termites with a glue gun for a head, insects truly are the most formidable warriors in the world, whether they fight each other, or fight us.

Sujaya Rao, a professor in the Department of Entomology is passionate about insects, and of increasing awareness about insects and their associations with humans. Her research and teaching has focused on pests and pollinators but her travels have exposed her to insects in the natural world. Along the way, she has acquired a fascination for the diversity in adaptations in insects that enable them to not only occupy almost all habitats but also engage in amazing “attack” and “defend” behaviors that allow them to...
Beginners’ Chess and 21st Century Skills  
EPSY 1905  
3 credits  
Fall 2019  
William M. Bart  
Educational Psychology  

Examination of the basic components of chess, computer-based chess, how chess players think, including visual-spatial thinking and critical thinking, the psychology of critical thinking and other 21st Century reasoning skills, research on chess cognition, and the international chess community.  

W. Bart, the proposed instructor for this seminar, has published research on the psychology of chess. He is a Professor of Educational Psychology at the University of Minnesota and received the Distinguished Teaching Award from the College of Education and Human Development. He is a Fellow of the American Educational Research Association and a Fellow of the Association for Psychological Science.

An Eater’s Guide to the Food System  
FDSY 1903  
3 credits  
Fall 2019  
Tom Michaels  
Department of Horticultural Science  

In this course we will explore the plants that are the basis for our food system and how natural and human forces influence their abundance and quality. We will highlight sustainability through evaluation of environmental, economic, and social impacts on the food system and how consumers can effect change. Coursework will include assigned readings, discovery of new information shared with the class through written reviews and oral summaries, discussions, and hands-on plant growth and food production activities.  

Professor Tom Michaels teaches undergraduate courses about edible landscapes and food plant production. His research focuses on the development of new varieties of dry beans, leafy greens, and other vegetable crops for organic and local food production systems. He is also the faculty coordinator of the Food Systems major and minor.

Ways of Knowing and Science  
FSCN 1902  
3 credits  
Fall 2019  
LE: DSJ  
Craig Hassel  
Department of Food Science and Nutrition  

In this seminar, students will experience diverse ways of knowing through field trips, class discussion, and assignments. Experience is often the best teacher. Through direct experience and involvement with another culture, you will encounter different worldview orientations and ways of seeing and making meaning in the world. The seminar will focus specifically on different cultural orientations to understanding food, health, and wellness relationships.  

The faculty teaching will be Craig Hassel, home department: Extension/ Food Science and Nutrition. Craig teaches two freshman seminars and works with the Center for Spirituality and Healing, in addition to serving as Extension Nutritionist for Food Science and Nutrition. Craig also advises undergraduate and graduate students. In addition to his research activities, he works with the Inter-institutional Consortium for Indigenous Knowledge at Penn State University, the Cultural Wellness Center in Minneapolis and St. Paul, and the White Earth Tribal Council.

Antioxidants: How They Protect Your Food and Body  
FSCN 1905  
2 credits  
Fall 2019  
Dr. Agi Csallany  
Department of Food Science and Nutrition  

This course will review how changes take place in food and biological systems in the absence and presence of antioxidants. We will concentrate on what antioxidants are, how they act, and how they protect food from deterioration and the body from deteriorative changes.  

Dr. Csallany teaches a graduate level course on antioxidants. In addition to her research activity, she advises graduate and undergraduate students. Her areas of interest are: Food chemistry and nutritional biochemistry; free radical induced oxidative degradation of fatty acids, in vitro and in vivo systems, in fats, oil and various lipids; isolation and identification of degradation products with special reference to toxic compounds such as HNE; protective effects of antioxidants with special reference to vitamin E in lipid peroxidation and degradation.
**Farm to Someone Else's Table: Making food accessible for all students**

FSCN 1906  
3 credits  
Fall 2019  

Len Marquart and Craig Hassel  
Department of Food Science and Nutrition

This course explores a potential theory of gradually changing the food system to better include meaningful and relevant practical, healthy, affordable, desirable (PHAD) foods that will enhance the nutrition of the general population and ultimately enhance public health. We will foster essential leadership qualities, skills, and knowledge to work toward collective solutions around adaptive challenges. We will create a valid, reliable, and sustainable process for the development of practical, healthier, affordable, and desirable foods.

Len Marquart: home department Food Science and Nutrition. Len is a tenured faculty member in Food Science and Nutrition. He teaches courses core to the Dietetics Program, including Food Service Operations Management 1 and 2. Len also advises graduate students and teaches leadership and soft skills to both graduate and undergraduate students, in addition to his research activities.

Craig Hassel, home department: Extension/Food Science and Nutrition. Craig teaches two freshman seminars and works with the Center for Spirituality and Healing, in addition to serving as Extension Nutritionist for Food Science and Nutrition. Craig also advises undergraduate and graduate students. In addition to his research activities, he works with the Inter-institutional Consortium for Indigenous Knowledge at Penn State University, the Cultural Wellness Center in Minneapolis and St. Paul, and the White Earth Tribal Council.

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**Coral Reef Management in Belize**

FW 1901  
3 credits  
Spring 2020  
LE: ENV

Jim Perry  
Department of Fisheries, Wildlife and Conservation Biology

In this Freshman Seminar Abroad, we will examine the management of reef environments through experiential education and field work and learn about the importance of reefs, the influences that endanger reef ecosystems, and community action plans that are working to manage reef health. Over spring break, we will travel as a class to the Mesoamerican Reef in Belize to snorkel and experience the reef and conservation planning firsthand. An ability to swim is required.

Jim Perry is a H.T. Morse Distinguished Professor of Water Quality and Environmental Management. His current research focuses on climate change and the ways it interfaces with the concept and application of heritage at both the local and global levels. Dr. Perry has led a Freshman Seminar Abroad to Belize five times previously, as well as a Global Seminar to Peru numerous times.

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**Living with Innovation**

GEOG 1913  
3 Credits  
Fall 2019

Peter Calow  
Geography, Environment and Society

This seminar will examine innovations ranging from artificial intelligence (AI) and information technology to nano-materials and genetically modified organisms (GMOs). The message will be that we need innovation to address big world challenges such as a global population on its way to 10 billion and the pressures that bring to food supply, pollution, and climate change. Yet the innovations themselves can cause problems that include threats to health, environment, and social order. Exploring how science can be used to anticipate and manage these risks will be a core theme. Students will read, discuss, and debate cutting edge material from the scientific literature and popular press.

Center for Science, Technology, and Environmental Policy Peter Calow has spent a long career researching the risks of chemicals in the environment in Europe and North America. He has worked at universities and for governments, including the European Union. He has special interests in the interface between science and public policy.

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**Film, Art, & Memory: Post-Holocaust Berlin**

GER 1911W  
3 Credits  
Spring 2020  
LE: GP  
Writing Intensive

Leslie Morris  
German, Nordic, Slavic and Dutch

This freshman seminar abroad will explore Berlin and its history while studying how post-Holocaust Berlin has engaged in a complex inquiry into its past. We will focus on how memory of the Holocaust is still present in Germany. During spring break in Berlin, the vibrant cultural, political, and film capital of Germany, we will learn about the complex layers of historical and cultural memory in Berlin through exploring a number of important film and visual art projects. Among other sites we will visit are the Olympic Stadium, the Jewish Museum, the Monument to the Murdered Jews of Europe, remnants of the Berlin Wall, and public art projects that reflect on histories of trauma. There are few cities so scarred by a traumatic history and so often reborn and so well documented by films from the entire span of the 20th century and into the new one. This course will look at some of those films and the city in which they were made. At home and abroad, we will discuss how German visual culture has been intertwined with German history and politics, and how that role has evolved over time.

Leslie Morris is a professor in the Department of German, Nordic, Slavic & Dutch, and the Director of the Center for Jewish Studies. Her teaching and research centers on German-Jewish memory, history, and culture. She is particularly interested in the ways historical trauma is shaped and reshaped in public discourse in Germany, and has written about public art and literary and film texts that remediate the limits of Holocaust representation.
Ending Sexual Violence at the University of Minnesota
 GWSS 1913
 3 Credits
 Fall 2019

Lena Palacios
Gender, Women and Sexuality Study

The 2015 College Student Health Survey, administered by Boynton Health at the University of Minnesota found that there has been an increase in the number of women and men who reported they have been a victim/survivor of sexual assault. Approximately one in three (32.4%) female students at the University of Minnesota-Twin Cities report experiencing a sexual assault within their lifetime, with 8.9% reporting having been assaulted within the past 12 months. This is an increase over previous surveys, including a 2013 survey in which 22 percent reported sexual assault in their lifetime. Male students at the college have experienced sexual assault at lower rates, with 10.7% reporting an assault within their lifetime and 2.7% reporting an assault within the past 12 months. Recently released research (Eisenberg, Lust, Mathiason & Porta, 2017) based on this very same annual surveillance program has found that rates of sexual assault victimization were considerably higher among LGBTQ students than heterosexual students. This interactive seminar asks and attempts to answer: what would it take to end sexual violence for everyone at the University of Minnesota? We will explore this question in the feminist criminology, public health, and anti-sexual violence movement literatures. In addition, we will learn from guest speakers, student activists, sexual assault advocates, Title IX coordinators, researchers, Sexual Assault Nurse Examiners, transformative justice collective members, etc., who are working tirelessly both on- and off-campus to end both sexual violence and the “rape culture” that sustains it.

Lena Palacios is a self-identified Chicana queer crip and sexual assault survivor born in Vancouver, BC but raised in San Francisco, CA. Her research and teaching focuses on anti-sexual violence movements, critical prison studies, Black, Indigenous, Chicana/Latina queer and trans feminisms, girls and girdlehood studies, transformative justice and community accountability, media justice, and youth-led participatory action research. Motivated by recently surviving cancer, Lena volunteer with Care Partners at Masonic Children’s Hospital. She plans to switch careers soon to become an advanced practice registered nurse. Lastly, Lena is a cat mama to two rambunctious rescue kittens.

Debbie Do-Gooder and the White Savior Cat: Humanitarianism or Queer & Feminist Imperialism?
 GWSS 1914
 3 Credits

Sima Shakhsari
Gender, Women and Sexuality Study

Why do we, as Americans, have the urge to help people in the Third World? Do people in the Third World need saving? What do Debbie Do-Gooders, some human rights activists, and white savior cats have in common? How does the “Third World” become the “Third World”? What is humanitarianism and how is it different from imperialism? How do we support local movements without becoming queer, non-binary, and/or feminist imperialists? What constitutes queer and feminist liberation? Can the subaltern cat meow? These are some of the questions that we try to answer in this freshman seminar. We will watch films, music videos, read stories and poetry, come up with white savior cat memes, and listen to people who work in feminist, queer, and trans organizations in different parts of the world to learn about queer and feminist activism, and to unlearn Eurocentrism.

Sima Shakhsari teaches in the Department of Gender, Women, and Sexuality Studies. They received their PhD in Cultural and Social Anthropology from Stanford University and have taught gender, women, and sexuality studies and anthropology courses at the University of Houston, Wellesley College, and University of Pennsylvania. Their research interests include sexuality studies, transgender and queer studies, and Middle East studies. Their book, Politics of Rightful Killing: Civil Society, Gender, and Sexuality in Weblogistan, is an ethnography of the Iranian blogosphere during the “war on terror.” Professor Shakhsari has three cats and likes to use a lot of cat memes in their classroom. You will see a lot of the “White Savior Cat” memes in this course.

28 University of Minnesota | Twin Cities
## M.J. Maynes

**History**

What do French Enlightenment philosopher Jean-Jacques Rousseau, anti-slavery activist Frederick Douglass, and comic artist Alison Bechdel all have in common? They all wrote autobiographies, but they told very different life stories and had different motives for telling them. Historians tend to be skeptical of autobiographies because their authors are bound to be less than completely truthful in writing them. Still, they offer us a take on the past that is unique, and not just from the perspective of the famous or powerful. We can also find life stories written or told orally by ordinary people as well. This seminar will explore stories that people tell about their lives in different eras and cultures. We will address questions about how to read life stories for the historical truths they reveal (and conceal).

M.J. Maynes is a historian who has long been curious about the past as seen from individual and personal points of view. She has written historical accounts based on autobiographies and other personal narrative sources such as letters and diaries and graphic memoirs.

## Eric Watkins

**Department of Horticultural Science**

This course will examine the American lawn in terms of its history, impact on society and the environment, and future. We will examine both the environmental and economic impact of lawns. We will also discuss several technologies related to the lawn and how they affect society. Some of the topics we will cover include low-input lawns, pesticide fate, nutrient run-off, genetically modified lawn grasses, and mowing technology. Students will explore these topics through field trips, readings, class discussions, and interactions with people working in areas related to the American lawn. Writing and in-class presentations will give students opportunities to improve critical communication skills. Students will be exposed to important technologies, learn about the science behind the technologies, and discuss how these technologies can impact society.

“Eric Watkins is a professor in Horticultural Science. His research focuses on the development of new low-input turfgrasses (lawn grasses that need less water, fewer pesticides, and less fertilizer). Eric has been recognized for excellence in undergraduate advising and his lawn is not as good as you think it should be.”

## Lorenzo Fabbri

**French and Italian**

“Community/Media/Activism: Building Resilience through Cinema” challenges first year students to think beyond the borders of a field, an area of study, and the classroom space by engaging with local communities and learn through service. After learning about the importance of media for social justice and acquiring elements of media literacy, students will collaborate with a community partner on a film project advocating its mission. During the first 10 weeks of instruction, “Community/Media/Activism” will explore through screenings, filmmakers, masterclasses, invited community speakers, and experiential assignments how, in Italy, film and media have been deployed to favor political change, inclucivity, and diversity; to fight for social and ecological justice; to expose unseen and unheard stories; to question prejudices that have to do with race, gender, class, body shape, and cognitive abilities. The last 5 weeks of class run as a media lab where students, under the mentorship of a local media-activist, will work on a short film that relies on the strategies and practices unpacked during the course.

Lorenzo Fabbri is a McKnight Land-Grant Professor in the Department of French and Italian at the University of Minnesota, Twin Cities. Lorenzo’s research focuses on the relation between film and politics, and he has just completed a book on the role that cinema plays under fascist regimes, as well as in the resistance against them. Lorenzo has a background in film production, and before moving to the States from Rome has worked on several low-budget films and social media campaigns. In his spare time, Lorenzo enjoys cooking, playing soccer, and watching tv with his dog.

## Ken Doyle

**Journalism**

Do you ever wonder why some people run away from money, while most people chase after it? Or why some people who could afford better buy their clothes at Savers while others (who maybe can’t afford it) prefer to shop at Gucci or Armani? Or why husbands and wives, and parents and children, so seldom agree on what to do with money? Understanding the symbolic messages money sends to people is the key to learning how to answer these questions. Whether your interest is business, liberal arts, or a particular profession, this seminar ought to be interesting and useful for you.

There’s truth to the rumor that Professor Doyle is a maverick. A former monk, retired financial planner and investment advisor (once licensed in stocks and bonds, life/health insurance, and real estate), and a licensed financial psychologist (PhD Minnesota), he comes at the meanings of money from many angles. Especially interested in cross-cultural meanings of money, he’s president of the Minnesota chapter of the Circumnavigators Club (limited to people who have circumnavigated the globe). He studied in Italy when Caesar was a boy, and has visited 55 countries.
Winning People Over: The Art and Science of Persuasion

JOUR 1912
3 Credits
Spring 2020

Ken Doyle
Journalism

Seven days a week everywhere in the world, people are busily trying to persuade other people. Students want their professors to accept late work. Professors want students to throw themselves into their coursework. Advertisers want consumers to buy their products. PR practitioners want people to think more highly of their clients. Newspaper editorialists want readers to change their minds. Defense lawyers want juries to acquit their clients. And politicians want constituents to vote for them. Some of these people are very effective persuaders; others less so. In this course, we will search out the best techniques for persuading different kinds of people to do various things. We’ll study really good textbooks, meet top-quality professional persuaders, and search out real-life instances of good and bad persuasive efforts. And we’ll try our hands at persuading someone to do something that’s important to us. All the while we will be trying to build our own theories of persuasion and maybe have some fun!

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Keep out of Money Trouble

JOUR 1913
3 Credits
Fall 2019 and Spring 2020

Ken Doyle
Journalism

Money can’t buy happiness, but managing your money well can have an amazing impact on your whole life. This course will teach you how to manage your money well. We’ll pay special attention to the financial implications of decisions you’re making today -- choosing a career, funding your education, giving to people who need help -- but we’ll also help you think about future decisions like buying a house and a car, starting a family, and helping people who need help.

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An Olympic Impact on the World

KIN 1904
3 credits
Fall 2019
LE: GP

Donald Dengel
Kinesiology

In the late nineteenth century, Baron Pierre de Coubertin, a French aristocrat, worked tirelessly to revive the Olympic Games from Greek history. Through Baron de Coubertin’s efforts the first Olympic Games of the modern era took place in 1896 in Athens, Greece. From a small sporting event that hosted a little over 300 athletes from 13 countries the Olympic Games have grown over the last 120 years to one of the most viewed sporting events in the world. Today, the Olympic Games hosts over 10,000 athletes from over 200 countries. The International Olympic Committee (IOC), which runs the Olympic Games, is now one of the most powerful and richest sporting organizations in the world. The Olympic Games have had a profound impact on the world we live in and they provide us with a platform for examining changes in the world’s cultural, economic, social and political processes over the last 120 years. This course explores the impact of the Olympic Games on the world’s cultural, social and political processes. In addition, this course will explore the impact of hosting the Olympic Games on that host city and the country’s economy. Finally, this course will explore the changes in sport that have occurred during this time span.

Donald Dengel is a Professor in the School of Kinesiology and has taught KIN 1905 a Freshmen seminar on this topic in the Fall of 2012 as Well as a Learning Abroad Course (KIN 4520) in 2012 and 2013 and as Study Abroad Course for the College of Education & Human Development in 2015. Professor Dengel was also an exercise physiologist at the US Olympic Training Center.

Linguistics and Biology

LING 1911W
3 Credits
Spring 2020
Writing Intensive

Jeanette Gundel
Institute of Linguistics

Before the Chomskyan revolution in linguistics in the early 1960s, the connection between linguistics and biology was largely restricted to the study of the anatomical properties of the human vocal tract involved in the articulation of speech sounds. In recent decades, however, the relation between linguistics and biology has begun to focus on the biological basis of human language, including connections between evolution of language and that of the human brain, and possible existence of “language genes.” In this seminar, we will examine the connection and relationship between linguistics and biology over time, with specific focus on how this reflects development of the field of linguistics as well as more generally the nature of interdisciplinarity.

Jeanette Gundel has been teaching linguistics at the University of Minnesota for over 30 years. She has always been interested in how language interacts with other cognitive systems and in its biological basis. She has published over 60 articles and currently serves as associate director of the Center for Cognitive Sciences.
Invented Languages

LING 1912
3 Credits
Fall 2019

Jean-Philippe Marcotte
Institute of Linguistics

As far back as we can tell, there have been thousands of natural languages spoken by humans the world over; 7,102 today, according to a recent authoritative count. So why are there also hundreds and hundreds of invented languages? What niche are they intended to fill? And why did so few of them make it out of the works of their inventors? In this seminar we will approach these questions by looking at languages invented by philosophical taxonomists during the Enlightenment, by internationalists in the late 1800s, by simulationists in the 1900s; we will take a look at online communities of language inventors to understand what makes them tick, and see how invented languages and their inventors are portrayed in the media. To get the most out of all this we will also have to talk about the properties of natural languages: how they are structured, how they are used, how they change over time, and why there are so many of them.

At an impressionable age, Jean-Philippe Marcotte became fascinated with the invented languages of J.R.R. Tolkien, discovered he had been a philologist, and made sure to pick a college with a philology course. But introduction to linguistics was a prerequisite, and JP has been on that sidetrack ever since. He has been teaching at the University of Minnesota for 10 years.

Violence Against Women In Opera

MUS 1911
3 Credits
Fall 2019

David Walsh
School of Music

In this seminar we will combine lecture, discussion, listening, and viewing of opera productions which depict different aspects of “violence” against women. We will utilize seven well-known operas from a wide variety of periods and styles to illuminate how opera is uniquely suited to addressing this particular issue. The operas will include The Marriage of Figaro, La Traviata, Carmen, Madama Butterfly, Street Scene, The Rape of Lucretia, and Susannah.

A native of Toronto, Canada, David Walsh graduated with Honours in Political Science and Economics before studying Theatre Science at the University of Toronto. Following a career as Production Stage Manager with the Canadian Opera Company, Stratford Festival and Scottish Opera, he left the technical sphere to become Assistant Stage Director with English Music Theatre.

Guitar Heroes

MUS 1912
3 Credits
Fall 2019

Maja Radovanlija
School of Music

This seminar is going to explore music related to the most popular instrument in the world: guitar. Students will be introduced to the centuries-old world of the classical guitar, the flamenco guitar, the guitar in Latin America, African guitar styles, the birth of American guitar (blues, country, jazz, etc.) and rock/electric guitar. We will explore the role of the guitar in popular music, jazz, world, and classical music.

Maja Radovanlija was born in Belgrade, Serbia and has been playing guitar since the age of nine. Radovanlija completed her bachelor’s degree at the University of Belgrade and received her master’s and doctor of music at Jacobs School of Music, Indiana University. During her studies, she won several prizes at international guitar competitions in Serbia and Bulgaria. Since then, she has performed frequently as a solo and chamber musician, touring European countries, Middle-east and North Africa. Radovanlija’s interests include musical genres beyond classical, such as traditional Balkan music, jazz, experimental, and improvised music.

Striving to be Creative Leader

MUS 1913
3 Credits

Jerry Luckhardt
School of Music

The topic of leadership has been studied over many disciplines. This course will explore this interesting subject through the experience of a musician, conductor, administrator and teacher. Beyond examining theories of leadership this course will explore creativity, communication and setting the conditions for using leadership in everyday life.

Jerry Luckhardt is Associate Director of Bands at the University of Minnesota School of Music - Twin Cities, where he conducts the Symphonic Band and teaches conducting. His other artistic and administrative positions include: Associate Director and Director of Graduate Studies (2016-2019), Acting Director of Bands (2015-2016), Acting Director of the University of Minnesota School of Music (2007-2008), Director of the University of Minnesota Marching Band (1997-2004), Associate Director of Bands at Baylor University (1994-1997), Assistant Director of Bands at the University of Texas-Austin (1991-1993), and Marching Band Director at the University of Michigan (1989-1990).
Amadeus: In Search of Mozart

PHIL 1911W
3 Credits
Fall 2019
Writing Intensive

Michael Kac
Philosophy

Wolfgang Amadeus Mozart is one of the greatest composers in the Western classical canon. He is also the one who seems to have the strongest hold on the modern imagination. This seminar will explore Mozart’s life and music through both listening and viewing. Why should anyone today care about music by someone who lived more than 200 years ago? Part of the answer is that this music, like the plays of Shakespeare and the paintings of Rembrandt, is of such greatness and power that every age since has found something in it to value. Mozart is also an intriguing figure for other reasons. What we know about his personality seems wildly at odds with the sublime character of his music. The music itself presents us with a mystery: much of it is so lighthearted that one wonders how it manages to be so profound at the same time. No prior knowledge about music is required, just an open mind.

Michael Kac, professor of philosophy and linguistics, is a musician and composer with extensive experience in both the classical and popular fields. From 1967-69 he played electric harpsichord with the rock band Mandrake Memorial, with whom he recorded two albums. More recently, he spent a number of years as part of a duo with guitarist Linda Cohen performing music in an eclectic blend of styles. He also performs regularly on the Twin Cities folk-music circuit.

Music in Nazi Germany

MUS 1914W
3 Credits
Fall 2019
LE: CIV
Writing Intensive

Karen Painter
School of Music

Apart from an explicit message in the lyrics, title, or dedication, can music itself be political? Often, the political message comes from the interpreter, not just the composer or performer. Are composers responsible for the effect of the music, regardless of their intentions? How have those in power sought to legitimize their rule through the arts? Can the arts maintain their independence? What is the responsibility of the listener in a highly political environment? This seminar will examine the role of art and art censorship by focusing on one of history’s most brutal regimes, which was also among the greatest patrons of music. What compromises and benefits followed when a musician, conductor, or composer collaborated? Did exploiting music actually help the Nazis to build support? How should citizens of democratic societies commemorate and/or judge the choices that artists made in harsher times?

Karen Painter, associate professor of musicology, holds degrees from Yale University (1987) and Columbia University (1996). Her previous faculty appointments were at Dartmouth College and Harvard University, and she has served as Director of the Office of Research and Analysis for the National Endowment for the Arts.

The Color of Music

MUS 1915
3 Credits
Fall 2019

Gabriella Currie
School of Music

How are sounds depicted? How are colors sounded? How do the worlds of music and fine arts intersect and construct meaning that is both specific to each and shared by both? How does each help us experience the world around us in different yet complementary ways? In this seminar you are invited to join a semester-long journey which seeks some answers to these questions through immersion in the sounds, shapes, and colors of Western European art across many centuries. We will be looking at art and listening to music, while learning how to express what we perceive to be interesting, beautiful, and meaningful about their relationship and our reaction to them.

Gabriella Currie received her B.A. in musicology from the Ciprian Porumbescu Conservatory in Bucharest, Romania and her M.A. and Ph.D. from New York University. Prior to her arrival at the University of Minnesota, she taught at the Eastman School of Music, New York University, and Cooper Union. Her research interests and publications concern medieval music theory, the intersection between musical and scientific thought in the early- and pre-modern eras, music iconography in pre-modern Eurasia, and travel accounts as early ethnographies of Byzantine, Balkan, and Ottoman musical traditions.

All About Music: Its Meaning, Reality, Communication, and Embodiment

MUS 1916
3 Credits
Fall 2019
LE: TS

Guerino Mazzola
School of Music

The great philosopher of life Friedrich Nietzsche rightly claims that “without music, life would be a mistake.” This does not mean that life is automatically perfect with music. This seminar deals with exactly this problem: What is music doing to us? Why do we listen to it? And how? What is its meaning in our lives, why does it matter, which realities does it touch, how can it be communicated? In what way is it distributed between intellect and emotions? And why do we go to concerts, since electronic media and the internet provide such easy access? The answers will be approached via intensive listening to all kinds of music from different cultures and epochs as well as through critical, very open discussions with the students. The instructor being highly sensitive to non-authoritarian music cultures, he may provide a thoroughly dynamic and flexible access to music.

Guerino Mazzola qualified as a professor in mathematics (1980) and in computational science (2003) at the University of Zürich. Visiting professor at the Ecole Normale Supérieure in Paris in 2005. Since 2007 professor at the School of Music, University of Minnesota. He developed a Mathematical Music Theory and software presto and Rubato. Since 2007 he is the president of the Society for Mathematics and Computation in Music. He has published 29 books and 145 papers, 26 jazz CDs, and a classical sonata.
The Craft of Rock-Era Songwriting

MUS 1917
3 Credits
Spring 2020

Peter Mercer-Taylor
School of Music

This course will take a broad sweep across the repertoire of rock-era popular song, encompassing a host of styles and genres in its exploration of the craft of songwriting. We will work together to develop a basic vocabulary for describing and critiquing the music we encounter, seeking to arrive collaboratively at a language through which to make sense of creative decisions on the large scale and small. That will mean looking in detail at musical parameters that include chord progressions, melodic trajectory, rhythmic nuance, and instrumentation, but neither the ability to read music nor any previous knowledge of music theory is required. Among the earliest material under consideration will be songs like Carole King’s 1960 “Will You Love Me Tomorrow,” which displays an ingenious, 32-bar ballad form that had been in circulation for decades. Among the latest will be songs like Kendrick Lamar’s 2015 “King Kunta,” whose successive verses stage an incremental increase of rhythmic activity so dramatic and propulsive as to leave the very idea of a succession of verses that undergirding principle of pop-song repetition in question. This pair provides some sense of the breadth of material under discussion.

Peter Mercer-Taylor, Professor of Musicology, earned his B.A. (1988) from Amherst College and his M.A. and Ph.D. (1995) from the University of California, Berkeley. He previously taught humanities and popular culture in the interdisciplinary honors college of Valparaiso University, joining the University of Minnesota faculty in 2001.

Mercer-Taylor’s scholarship has been divided between the 19th-century German classical tradition; Felix Mendelssohn in particular; and contemporary popular music, including the work of the Bangles, Elvis Costello, Bill Staines, and R.E.M. He has spoken at numerous conferences and symposia, and been interviewed on NPR and BBC Radio 2. Mercer-Taylor’s articles have appeared in a range of journals, including 19th-Century Music, Popular Music, Journal of the Society for American Music, Musical Quarterly, Music & Letters, and Journal of Musicology. He is the author of The Life of Mendelssohn (Cambridge University Press, 2000) and the editor of The Cambridge Companion to Mendelssohn (2004), and he is currently at work on a book on the impact of European classical music on 19th-century American hymnody.

Space and Time: from Aristotle to Einstein

PHIL 1914
3 Credits
Fall 2019

Jos Uffink
Philosophy

Space and time belong to those concepts that we all intuitively use to make sense of the world around us. They are also crucial in all of modern science. But modern physics has brought along radical revisions in our view on these concepts. This course will introduce you to these revisions but also raise questions that still remain unestablished. This course will take you through a history of ideas about the nature of space and time ranging from Aristotle and Euclid in the 3rd century BC to Einstein’s theory of general relativity, and the Big Bang model and black holes of modern cosmology. Along the way, we will discuss specific questions like: what is the geometry of physical space? Or is the choice of geometry a mere convention? Is space merely a relational notion? Or should we conceive of it as some kind of entity in its own right: as the stage on which the evolution of the universe takes place? How does Einstein’s relativity theory change the verdict on these questions? Similar questions will be raised about time. In addition, we will discuss questions like: Is time travel physically possible? Does time have a direction? Do the past, present and future have a different status? And if not, how do we distinguish the past from the future?

Jos Uffink was trained as a theoretical physicist at the University of Amsterdam, where he did his undergraduate work, and at the University of Utrecht, where he completed his PhD on the quantum mechanical Uncertainty Principle. His research interests have always focused on foundational and philosophical issues in modern physics. Uffink’s main publications are on the topics of the uncertainty principle and entanglement in quantum mechanics and on the foundations of statistical mechanics.

How Should We Value Persons?

PHIL 1917
3 Credits
Fall 2020

Michelle Mason Bizri
Philosophy

A capacity for valuing (a capacity for, among other things, effectively responding to the significance of events, actions, or persons) is central to our status as moral beings. Moreover, how well or poorly we value influences the kinds of feelings we warrant in turn.

A proper orientation to the value of things and persons likewise is necessary if we are to live good lives. A good life, that is, plausibly requires that we concern ourselves not only with the truth of what we believe and the efficacy of what we do but, also, with the appropriateness of our evaluative attitudes and feelings toward things and persons (including oneself).

This class will explore the complexity and moral significance of our modes of valuing persons by introducing and investigating a class of esteem-based, person-focused evaluative attitudes. Paradigms of the class include forms of contempt, shame, pride, and love. Although these attitudes are both commonplace and arguably central to holding others and ourselves accountable to moral ideals, contemporary Anglo-American moral philosophy lacks a systematic account of them as a class.

Michelle Mason Bizri is Associate Professor of Philosophy at the University of Minnesota and Visiting Associate Professor of Philosophy at Brown. Her main research interests are in moral psychology; her research on the nature and moral significance of person-focused evaluative attitudes has been published in Ethics, Philosophical Papers, Philosophy and Phenomenological Research, and Behavioral and Brain Sciences, among other venues. Mason Bizri once successfully anesthetized her daughter’s pet goldfish; the ensuing surgery was, however, a failure.
Global Warming Solutions

PHYS 1901
2 Credits
Fall 2019

Eric Ganz
School of Physics and Astronomy

In this seminar, we will consider various possible solutions to the current and future global warming problem. This is a topic of intense global importance. Topics will include efficiency and conservation, reduced carbon in electricity production and transportation, wind and solar power, nuclear power, policy changes, third world solutions, reforestation, and more.

Eric Ganz is an associate professor in the Department of Physics. His area of expertise is condensed matter physics.

Nanotechnology

PHYS 1902
2 Credits
Spring 2020

Eric Ganz
School of Physics and Astronomy

Nanotechnology is increasingly important in our modern world, and now a part of our daily lives. For example, clear sunblock uses nanoparticles. In this course, we will discuss real-world applications and consequences of nanotechnology today, such as the ethical debate around CRISPR-CAS9 editing of human genomes, and the impact of nano in medicine. We will also discuss nanobiology, applications to drugs and energy, as well as new nanomaterials with unique properties. We will also tour the nanofabrication facility in our building. This seminar will be accessible to first year students.

Eric Ganz is an associate professor in the Department of Physics. His area of expertise is condensed matter physics.

Quantum Mechanics for Everyone

PHYS 1903
2 Credits
Fall 2019

Allen Goldman
School of Physics and Astronomy

One of the greatest intellectual accomplishments of the twentieth century was the development of quantum mechanics, a field of physics which describes the counter-intuitive behavior of molecules, atoms, light, and subatomic particles. Can you pass through a solid wall without disturbing yourself or the wall? An electron can and does repeatedly in many common semiconductor devices. Without an understanding of quantum mechanics, neither the transistor nor the laser could have been invented. A significant fraction of the entire economy is based on technological developments that derive directly from quantum mechanics. This class will examine, with a bare minimum of mathematics, the conceptual foundations of the strange world of the quantum as well as its connection with devices and systems that we take for granted in our everyday lives.

Allen Goldman served as the head of the School of Physics and Astronomy from 1996-2009. His research is in the area of experimental condensed matter physics. The specific work on superconductivity involves the application of quantum mechanics to macroscopic systems.
Aurora: From Myths to Modern Science
PHY 1905
2 Credits
Cynthia Cattell
School of Physics and Astronomy

The aurora, or northern lights, have long fascinated humans. We now know that aurora occur on many other planets, including Jupiter, Neptune, and Uranus. We will examine the myths from both the northern and southern hemisphere that were devised to explain this beautiful natural phenomenon. The development of our scientific understanding of the aurora is littered with completely incorrect explanations by prominent scientists. It is only with the new measurements made after the space age that we have finally begun to understand the aurora--both on the Earth and on other planets. If the space weather cooperates, we will try to observe the aurora.

Physics and Astronomy Cynthia Cattell is a professor in the School of Physics and Astronomy. She first saw the aurora on a climbing expedition in Alaska, as a college freshman. Little did she know at that time that the study of the physics of the aurora would become the topic of her doctoral dissertation, and the research of some of her students.

What is Space Weather (and Why Should You Care)?
PHY 1906
2 Credits
Cynthia Cattell
School of Physics and Astronomy

In this class, we will explore the way our sun changes over the eleven-year solar cycle and how this can affect events from airline travel, cell phone coverage, and power outages to beautiful aurora and manned spaceflight to Mars. We will also touch on space weather on other planets (including exoplanets) and the possible impact on development of life. If the space weather cooperates, we will try to observe the aurora and related phenomena including sunspots.

Physics and Astronomy Cynthia Cattell is a professor in the School of Physics and Astronomy. She first saw the aurora on a climbing expedition in Alaska, as a college freshman. Little did she know at that time that the study of the physics of the aurora would become the topic of her doctoral dissertation, and the research of some of her students.

The Physics of Warfare
PHY 1907
2 Credits
Spring 2020
Allen Goldman
School of Physics and Astronomy

Throughout history and even today, military leaders contemplating war, or involved in it, are always looking for some advantage over their enemies. Most have searched for a new type of wonder weapon, one that the enemy does not have. It is frequently physics that provides a path to this new weapon. Physics and science and technology in general have been of tremendous value to contemporary military leaders. They have given them an understanding of the electromagnetic spectrum so that radiation can be used in various military applications. They have also given them an understanding of rocketry and jet engines, and knowledge of the secrets of the atom so that it is possible to engineer weapons of mass destruction. This course will provide an overview of most branches of physics and in the process of doing so will show how physics has been used for military applications. It will to some extent provide a summary of the history of warfare from the first bows and arrows and chariots, through contemporary weapon systems. Students enrolled in this seminar will learn some physics, and hopefully they will take away enough understanding of contemporary military technology to be informed citizens on issues that command such a large fraction of the national budget.

Physics Allen Goldman served as the head of the School of Physics and Astronomy from 1996-2009. His research is in the area of experimental condensed matter physics. The specific work on superconductivity involves the application of quantum mechanics to macroscopic systems.

What is Time?
PHY 1910W
2 Credits
Spring 2020
Writing Intensive
J. Woods Halley
School of Physics and Astronomy

The precise meaning and use of the concept of time has evoked serious study and debate among the most able of human thinkers for more than 2,000 years. In this seminar, we will review several of the current perspectives as well as some of this history of the concept of time from the points of view of philosophers, biologists, psychologists, and physicists.

J. Woods Halley teaches physics courses at all levels and directs research programs in low temperature and chemical physics. He is a fellow of the American Physical Society and the Minnesota Supercomputing Institute, as well as a member of the University of Minnesota graduate faculties of physics and materials science.
How Likely is Extraterrestrial Life?

PHYS 1911W
2 Credits
Fall 2019
Writing Intensive

J. Woods Halley
School of Physics and Astronomy

The goal of this course is to familiarize students with the main available scientific facts and arguments which bear on the question of the likelihood of extraterrestrial life. A second goal is to familiarize students with aspects of the various relevant disciplines early in their university careers when they may still be selecting a major. The third goal is to provide familiarity with information resources at the university, particularly through the library, as well as improved reasoning, writing, and speaking skills.

J. Woods Halley teaches physics courses at all levels and directs research programs in low temperature and chemical physics. He is a fellow of the American Physical Society and the Minnesota Supercomputing Institute, as well as a member of the University of Minnesota graduate faculties of physics and materials science.

Sequencing Plants, Pets, and Pathogens: The Genomics of Non-Humans

PLPA 1902
3 credits
Fall 2019

Nevin Young
Department of Plant Pathology

This seminar will examine genomic insights into plants, animals, and microbes. Students will explore DNA sequencing of crop varieties, animal breeds and disease pathogens, the genomes of primates, the genetic basis of domestication, genome engineering, synthetic genomes, and the sequencing of microbial communities; primarily through readings taken from contemporary, popular press articles as well as in-class practicums, activities, and debates.

Nevin Young is a genomicsist and professor of plant pathology. His lab studies legumes (like soybean and alfalfa), focusing on the genetic basis of disease resistance and symbiosis with nitrogen-fixing microbes. In the classroom, he teaches courses in genomics and biotechnology, exploring recent discoveries in these fields and their impact on public and environmental policy debates.

Islam, State, and Violence in Central Asia and Afghanistan

POL 1911
3 Credits
Fall 2019

Kathleen Collins
Political Science

This course will examine the twentieth and twenty-first century political trajectories of the countries of Central Asia (Uzbekistan, Tajikistan, Kazakhstan, Kyrgyzstan, Turkmenistan, Afghanistan, Pakistan, and Azerbaijan). We will read works that discuss the pre-modern tribal and clan-based structures of these societies, as well as the urban Islamic settlements that were long centers of Islamic scholarship and of the Silk Road. We will examine the massive repression of the communist era, and the consequences for Islam, clan, and tribe. Then we will turn to the rise of post-Soviet forms of political Islam, in the context of a growth in corruption and new dictatorships. We will consider attempts at democratization and the causes of their failure. In the latter half of the course, we will contrast Soviet Central Asia with its southern neighbors, Afghanistan and Pakistan. Our focus will be on the growth of the Taliban in the wake of the Soviet-Afghan war, and again more recently. Finally, we will consider United States policy in the region.

Kathleen Collins is Associate Professor in the Department of Political Science and is the author of Clan Politics and Regime Transition in Central Asia (New York: Cambridge University Press, February 2006), which won the Central Eurasia Studies Society Book Award for Social Sciences. She has published articles in Comparative Politics, World Politics, the Journal of Democracy, Europe-Asia Studies, Political Research Quarterly, and other journals. She is currently writing a new book, tentatively titled: “The Rise of Islamist Movements: Islam and State in Central Asia and the Caucasus.” Collins has received grants from the Carnegie Corporation, Kellogg Institute, USIP, IREX, and NCEEER, among others and previously did consulting for USAID, ICG, the UNDP, NBR, and other organizations.

What is the Human Mind?

PSY 1914
3 Credits
Fall 2019

Chad Marsolek
Psychology

You are reading the description of a seminar. That is, some part of you is capable of taking a series of shapes as visual input, abstracting intended meaning from them, organizing the information, and evaluating what you’ve organized (e.g., “fascinating seminar!”). Your mind accomplishes this task, not your lungs or heart, but what is this thing—“mind”—that is capable of such complex internal information processing? Is it just a flurry of activated brain cells? Is something non-physical? When you think about it, one of the most intriguing aspects of the universe is that you can think, that minds operate as entities that appear to be crucially tied to physical brains but that are also importantly different. In this seminar, we will examine conceptions of the human mind from psychological, philosophical, and neuroscientific perspectives. Can science and critical analysis offer a concrete and compelling specification of the human mind?

Professor Marsolek investigates human memory, vision, and learning (as well as how emotional and social factors influence these abilities), from the perspective of how the brain underlies these abilities. His most influential work has been in uncovering important aspects of unconscious versus conscious memory and left/right hemisphere differences in the brain. His most important form of “sanity maintenance,” for both of his hemispheres, is live music, although he’s not quite sure how conscious or unconscious he is of such maintenance.
Race in Everyday Space
PSY 1916
3 Credits
Fall 2019
LE: DSJ
Adam Kim
Psychology

This seminar examines the nature and meaning of being racial and ethnic minorities in the United States, with a particular focus on immigrant, refugee, second-generation, and adoptee communities that are unique to Minnesota and the Midwest. Students will learn about the unique and common histories, struggles, and successes of Blacks, Asian Americans, Latinx, and American Indians. Drawing upon psychological theory and research, as well as interdisciplinary ethnic studies scholarship, the seminar engages students in a critical analysis of the ways in which race, ethnicity, and migration affect the everyday lives of racial/ethnic minority individuals and families.

Adam Yoon Jae Kim is a doctoral candidate in psychology. Adam studies intergroup relations, identity, and transnational adoption through a cultural lens. Current projects include understanding the role of politicization in inter-minority solidarity, advancing our understanding of the experience of displacement and migration for transnationally adopted individuals, and investigating how transnationally adopted individuals think about their birth family and culture.

The Anxious Brain
PSY 1922
3 Credits
Fall 2019
Hannah Berg
Psychology

Anxiety is core to human existence; all of us have experienced it to some degree. But what exactly is anxiety? Why does it affect some more than others? And why have recent decades been called “the age of anxiety”? Of the many approaches to answering these questions, in this course we will begin with the human brain. The purpose of this course is to use neuroscience to better understand the human experience of anxiety. By the end of the course, students should be able to: 1) define anxiety in terms of its mental, physiological, and behavioral components; 2) identify the brain processes involved in the expression and inhibition of anxiety; and 3) explain mechanisms by which existing treatments for anxiety are effective. In the long term, students will be able to make connections between neuroscience and real-world instances of anxiety. Previous knowledge of neuroscience or psychology is not required.

Hannah Berg considered careers in creative writing and classical music before finding a passion for the root of all human expression: the brain. Today, her research combines psychology and neuroscience to investigate the associative learning processes that drive human anxiety. She is especially fascinated by experiences like uncertainty, indecision and ambivalence, and how these may arise from compounded or competing processes in the brain.

The Freshman 15: Stress and Health Management for College Students
PSY 1923
3 Credits
Spring 2020
Caprice Niccoli-Waller
Psychology

The start of college is a time of significant transition from family home to campus living. The changes across many domains of one’s life can disrupt healthy habits and initiate unhealthy ones. Are your stress levels out of control? Are you worried about your college eating habits? Are you planning to catch up on sleep after you graduate? In this seminar we will use a biopsychosocial framework, popular in health psychology, to examine personal health influences and choices. You will gain insight into your own health and learn methods to improve and sustain health behaviors that will better support your life as a student and your life beyond college.

Caprice Niccoli-Waller received her Ph.D. in biopsychology at the University of Ca., Davis. She has taught courses in health psychology for nearly 20 years and loves helping students take a closer look at their health and become empowered to make choices that support their health goals. She also teaches the Capstone in Psychology course, taken by all graduating Psychology students, and is excited to be working with students at both their entrance to and exit from college life.
Why would that policy ever work?: Grappling with the Challenge of Behavior Change

PSY 1924  
3 Credits  
Fall 2019

Alex Rothman  
Psychology

Many of the challenges facing society today in the areas of health and the environment are tied to patterns of human behavior. Given this state of affairs, numerous policies and initiatives have emerged, designed to shape our behavior -- to help us eat better, be more active, drink responsibly, refrain from smoking, use fewer resources, recycle more, to name but a few. And even a cursory review of these efforts reveals they can take many forms including the provision of incentives; the implementation of bans or mandates; supports for self-monitoring; the restructuring of behaviors to make them more accessible; the use of warning labels; or the dissemination of messages to heighten awareness, model behavior, or shape beliefs. What determines which strategies are used for which problems? Are these strategies effective? If so, why? If not, why not? We will spend the semester grappling with the challenge of trying to shape human behavior. Together, we will examine policies and initiatives that are currently in place, think through how they are supposed to work, and try to determine whether (or when) they are effective. Together we will form recommendations regarding best practices; recognizing where current efforts are succeeding and offer advice for where we can do better.

Alex Rothman is a social/health psychologist who is committed to forging stronger connections between what we know about the processes that shape people's behavior and the design and evaluation of policies and strategies to promote behavior change (primarily regarding health behavior). He collaborates with colleagues across a broad range of disciplines (e.g., mass communication, medicine, nursing, public health) and, with them, has worked to address a rich array of behavioral problems (e.g., diet, physical activity, cancer screening, smoking).

Language and Communication Technologies

SLHS 1913  
3 Credits  
Spring 2020  
LE: TS

Dr. Yang Zhang

The interdisciplinary field of speech-language-hearing sciences has been at the forefront of driving technological changes in our modern society. In this seminar, we will study the history of language technology and the relationship between language and technology that have shaped and continue to shape our day-to-day lives. We will discuss the social impact of technological developments from the invention of writing systems to the cutting-edge applications of brain-computer interfaces. We will also examine the ethical implications of advances in language and communication technologies. Topics include signs and symbols, script decipherment, automatic speech recognition and synthesis, text-to-speech systems, human-machine dialog systems, machine translation, hearing aid and cochlear implants as well as assistive technologies that support users with language and communication disabilities. Students will have opportunities to watch in-class short videos and demos, conduct speech analysis and synthesis labs, evaluate online text-to-speech systems and machine translation systems, and observe brain imaging experiments in small groups. This is an introductory level course that does not require an engineering background or computer programming skills.

Yang Zhang is the Director of Undergraduate Studies in the Department of Speech-Language-Hearing Sciences. He is also a Professor of the Center for Neurobehavioral Development in the Medical School. He specializes in brain imaging and the neural bases of language and speech communication.
Body, Culture & Society

SOC 1912
3 Credits
Fall 2019

Jane VanHeuvelen
Department of Sociology

Many of us think about our bodies from a very personal level. We wonder if our body is too thin or too heavy, whether we are too short or too tall, healthy or unhealthy, and whether or not our body is normal or abnormal. However, questions and answers regarding our bodies are often settled beyond our individual views. In this course, we will take a sociological perspective in thinking about the body. We will use our sociological imaginations to assess how notions of the body have been shaped by broader societal and cultural processes. We will draw from numerous frameworks and theories to explore the intersection of the body and several topics, including: identity, gender, media, race/ethnicity, sports, medicine, technology and public policy.

Jane VanHeuvelen joins the Department of Sociology as a contract Assistant Professor in the fall of 2019. Jane received her Ph.D. in Sociology from Indiana University in 2016. Her research interests are primarily in the areas of medical sociology, mental health and illness, and social organizations.

Transition to Adulthood: Perils, Opportunities, and Promise

SOC 1913
3 Credits
Spring 2020

Jeylan Mortimer
Department of Sociology

The paths young people take as they move through adolescence and transition to adulthood have become longer and more uncertain in recent decades. This course will examine how recent societal trends have influenced this process, including growing inequality, shifts in the labor force, technological advances, and changes in major institutions like higher education and criminal justice. How these trends affect young people depends on their gender, race/ethnicity, immigration status, and social class. We will examine youth agency: how young people envision their futures, make decisions and plans, and attempt to achieve their goals in contexts of changing opportunities and constraints. Trends and disparities in interpersonal competence, physical and mental health, vocational development, and civic engagement will be considered.

This freshman seminar will also consider social policy and interventions designed to enhance this phase of life and ensure successful transitions to adulthood.

Jeylan Mortimer is Professor of Sociology and Director of the longitudinal, three-generation Youth Development Study. This study has followed a cohort of young people from adolescence through the transition to adulthood. Her current research examines mechanisms of social class reproduction, including the influence of grandparents on the attainment process, the impacts of adolescent psychological resources on adult attainments, and intergenerational value transmission. She is also studying intergenerational reciprocity, the ways parents and children help one another as they move through the life course. She is the author of Working and Growing Up in America and co-editor of the Handbook of the Life Course.

Scientific Computing with Python

STAT 1915
3 Credits
Fall 2019

Singdhanu Chatterjee
Statistics

The singular most important skill to have in modern times is to be able to glean out true and relevant information from the deluge of data, and this class is aimed at developing that skill. To tease out information from big data, one needs an understanding of “what to compute” and “how to compute”: the statistics and computer science arms of data science respectively. This class will initiate the development of such an understanding, as well as develop some computational skills in Python language, and scientific writing skill is LaTeX language. Python is a modern programming language, which is very popular in various industries dealing with large quantities of data. LaTeX is the principal language for writing mathematical and technical descriptions and research papers. We will discuss the basic principles that form the foundation of data science, and are central to modern statistics, machine learning and artificial intelligence. We will discuss how to quantify uncertainty, identify falsehood and develop scientific skepticism while analyzing data.

When Ansu Chatterjee was a freshman, biologists, physicists, computer scientists and statisticians rarely interacted with each other. But then the big data tsunami hit, and suddenly the need to collaborate was born. Massive data sets show patterns that can only be revealed with modern statistics, and the research of the field has subsequently morphed in new and unanticipated ways, which excites Professor Chatterjee. The intersection between computer science and statistics is where he spends most of his time.
Cyborgs and Hackers: The Ethics of Digital Life

TH 1914
3 Credits
Spring 2020

Sonali Pahwa
Theaters Arts and Dance

Beings with artificial intelligence have raised ethical questions ever since they were fictional characters, such as the robot in the silent film Metropolis (1927). As contemporary technology expands the use of artificial intelligence, principles of ethical responsibility are up for constant debate. We explore ethics in the age of technology by examining how humanity is imagined in the art, science, and everyday life of artificial intelligence. Theater plays and films about cyborgs invest them with feelings, and question their exploitation by humans. Meanwhile, contemporary drones and robots are programmed with data drawn from humans, and evoke different fears of machines taking over the planet. We compare cyborg and hacking cultures to see how human and artificial intelligence engage with each other, and how their battles shape our concepts of intention and responsibility.

Sonali Pahwa is an ethnographer of digital and stage performance, who does research among the bloggers, vloggers, and Instagrammers of the Arab world. Her first book was on avant-garde theater in Egypt.

Art Laboratory: A Place to Play

TH 1912
3 Credits
Fall 2019

Michael Sommers
Theaters Arts and Dance

This seminar presents the characteristics and the challenges of collaboration through representative approaches from the visual arts, music, literature, media, and theater. The seminar content is designed upon three pillars: the collaborative space, flow, and gesture. Through concrete problematic situations, in-class discussion, readings, and proposed themes students will work collaboratively to create a series of events/works to be presented in class. The art of collaboration is a laboratory, a place to play, inspire, question, and fail. It is a platform to unlock personal images, and to cross boundaries to further understand the role of creativity, and innovation while discovering expression across disciplines.

Michael Sommers is an associate professor in the Department of Theatre and Dance. As a theatre artist he has worked as a designer, director, composer, and performer and is a co-founder of Open Eye Figure Theatre based in Minneapolis. He has created over 40 works for the Open Eye stage, and his work has been performed both nationally and internationally. He is the recipient of numerous grants and awards including the Bush Vision Award, a Ford Fellowship, and the Doris Duke Impact Award.

Attending (to) Theater

TH 1911W
3 Credits
Fall 2019
Writing Intensive

Sonja Kufinec
Theatre Arts & Dance

How do we attend and attend to theater in the Twin Cities? This seminar introduces non-theater (and potential) majors to the richness of small and mid-sized theater in the Twin Cities such as Penumbra, Open Eye, and Ten Thousand Things, attending 8-10 performances together. Workshops and discussions with theater professionals will help us to develop critical and creative language to think, write about, and potentially create live performance. We’ll think together about how theater might forge a different kind of “commonwealth.”

What are the limits of performance as a mode of conflict transformation and social change? Over 25 years Professor Kufinec has been exploring this question through research, teaching and practice.
Our planet Earth is dominated (>70%) by water. The hydrosphere contains about 1.36 billion cubic kilometers of water mostly in the form of a liquid (water) that occupies topographic depressions on the Earth. The second most common form of the water molecule on our planet is ice. If all our planet’s ice melted, sea-level would rise by about 70 meters. Water is also essential for life. Most animals and plants contain more than 60% water by volume. Without water, life would probably never have developed on our planet. Water contains nutrients that are essential for life. Nutrients are extracted from rocks and sediments. At present, human activity is dumping harmful pollutants (poisons) in surface and ground water. Poisons distribute between water and sediments, depending on the properties of the toxin, soil characteristics and water chemistry. Therefore, poisons present in water may contaminate both the aquatic and the soil dwellers, and plants, thus contaminating the food chain for humans as well as animals. The overall aim of this course is to discuss (i) effects of water pollution on aquatic and terrestrial organism including humans, (ii) water quality issues and (iii) water safety. After completing this course, participants will be able to: -Understand physicochemical and solubility properties of water. -Compare and contrast toxins’ behavior in water, soil, air and organisms. -Understand the concept of clean and polluted water. -Understand modes of action of toxic chemicals, types of effects from the molecular to the ecosystem level, and detoxification processes. -Understand food-chain contamination and ensuing toxicity.

Dr. Singh, Ph.D. Biochemistry/Toxicology, is an associate professor in the Department of Veterinary Population Medicine, College of Veterinary Medicine. His teaching and research interests are toxicology, environment, the Earth systems, and nanoparticles.

Garbage, in a broad sense, can be defined as anything (solids, liquid or gas) carelessly discarded because it is perceived to be worthless in our homes, businesses, institutions and factories. When humans were hunters and gatherers, they consumed what was needed, discarded what could not be used and moved on. Being part of nature, the discarded items degraded into reusable nutrients. The humans’ interaction with the environment was well balanced and humans’ footprints on the Earth were very minute, if at all. However, as the industrial revolution led to the development of large industries, humans began to invent things that were not part of nature, thus the natural balance began to misbalance. This results in accumulation of garbage into the environment, resulting in pollution of the atmosphere, land and water sources. Recently, economic globalization has further increased the magnitude of environmental pollution and ensuing deterioration of public health. If the current trend is not reversed, planet Earth may eventually become uninhabitable. Therefore, the students registering in this course will: (1) learn the processes that facilitate generation and accumulation of garbage, (2) understand the mechanisms responsible for pollution of the Earth’s environment, (3) characterize the health effects of the polluted environment, (4) strategize remediation steps that may halt or repair the damage and (5) interpret data in writing and verbally.

Veterinary Population Medicine Department Dr. Singh, Ph.D. Biochemistry/Toxicology, is an associate professor in the Department of Veterinary Population Medicine, College of Veterinary Medicine. His teaching and research interests are toxicology, environment, the Earth systems, and nanoparticles.
Poison, Poisoning and Society

VPM 1903
2 credits
Fall 2019

Dr. Ashok Singh
Veterinary Population Medicine Department

In the United States, approximately 50,000 people die each year as a result of unintentional poisoning, and another 800,000 are treated in emergency departments. The human-caused pollution of the environment (such as oil spill, poisonous gas leak, water pollution, global warming gas release, etc.) seriously impacts the health of millions of people and animals around the world. Despite such serious health consequences, people do not fully understand poisons or poisoning. In this course, students will learn some important aspects regarding poisons including, but not limited to the following. -What are poisons and what is poisoning? -Where do poisons come from? -What are the adverse effects of different types of poisons? -How to prevent poisoning? -What are the impacts of poisoning to the society? Chemicals encountered in everyday life will be used as examples to evaluate the hazards and risk of exposure and put them into perspective. Students will learn the basic principles of toxicology, tools for assessing the toxicology of chemicals, effects of chemicals on the body, and why some people are more sensitive to chemicals than others.

Veterinary Population Medicine Department Dr. Singh, Ph.D.
Biochemistry/Toxicology, is an associate professor in the Department of Veterinary Population Medicine, College of Veterinary Medicine. His teaching and research interests are toxicology, environment, the Earth systems, and nanoparticles.

Arguing with Authority: The Past, Present, and Future of Higher Education

WRIT 1915W
3 Credits
Fall 2019
LE: CIV
Writing Intensive

Patrick Bruch
Department of Writing Studies

This freshman seminar will introduce students to the intellectual projects of studying and participating in higher education as a participatory institution by inviting freshmen into critical dialogue with past, present, popular, and academic representations of higher education and its civic purposes. We will examine the shifting role of the university in public life and the roles that students and other constituencies have played in shaping the character of higher education through writing and other activities. Designed specifically for first-year students, the course will combine academic skill-building with personal and collective reflection on the actual and possible purposes and values of higher education for individuals and the society.

As a kid, Patrick Bruch got into trouble for questioning authority. When he went to college, he was happy to find that questioning authority is central to the university’s mission of creating new knowledge. This background informs his current research into the ways that regular people influence and shape powerful institutions, such as education. He studies writing, the teaching of writing, and higher education, all with an eye on the power of regular people to create a world that serves the interests of justice, fairness, and democracy.

Writing Medicine

WRIT 1935W
3 Credits
Fall 2019
Writing Intensive

Molly Kessler
Department of Writing Studies

This seminar will explore diverse types of communication that both shape and are shaped by medicine including essays, infographics, videos, and podcasts. We will also visit the University of Minnesota’s Owen H. Wangensteen Historical Library of Biology and Medicine to explore the unique resources that UMN offers those interested in writing, health, and medicine and several guest speakers will be invited to the course to share their real life experiences with medicine and communication. Ultimately, we will work together to define the role and value of writing and communicating within health and medicine. To do so, we will examine technical communication and popular genres written for a variety of audiences ranging from medical experts to the general public.

Molly Kessler is Assistant Professor in Writing Studies. She has always been curious about the medical field and was also born with a passion for writing, so when she discovered the field of technical communication (the study and practice of communicating about technical topics), she knew it was the career for her. Several years and a PhD later, she teaches technical communication courses and researches the role of writing in medicine, which includes studying prescription drug labels for patients, reflective writing as a learning tool for physicians, and communication about chronic illness.
Is democracy under threat? The upsurge of populist authoritarianism and racial nationalism around the globe in conjunction with recent assaults on traditional political institutions in the United States have raised concerns about the fate and future of democracy. Political scientists largely agree that the United States has become more democratic over the past two centuries, but results from the Authoritarian Warning Survey, a democratic-monitoring project, highlight the erosion of democratic principles and institutions in the past few years. Concerns about the meaning, nature, promise, stability or instability of democracy are, however, not new. In order to better understand contemporary threats to democracy this course explores how the meanings and understandings of democracy changed over the last few centuries by examining the complicated relationship between democracy, populism and racial nationalism. Is democracy a product of populism or imperiled by populism? What is the contemporary and historical relationship between democracy and racial nationalism? This seminar delves deeply into these questions by exploring a series of moments when the meanings and promise of democracy were contested. It begins with fundamental questions about the racial and gendered origins of American democracy. What is the relationship between the democratic state, the slave state and the settler colonial state? How did racial nationalism constitute and imperil American democracy from its origins? Populists, that is members of mass movements that claim to speak for “the people,” have struggled to both extend and redefine the limits of democracy. In these efforts, “citizens” have frequently been pitted against non-citizens making questions of immigration, naturalization, and detention central to contestations over democracy and its perceived threats. Moreover, in the United States, the relationship between detention and democracy can not be fully explored without paying significant attention to the rise of mass incarceration over the past half century. To what extent is the democratic state today threatened or maintained through the carceral state?

Student will engage with these issues through interdisciplinary lectures, course readings and discussions, and conversations with scholars, activists and organizations fostering democratic values and racial justice.

This course comes out of the Democracy under Threat Interdisciplinary Collaborative Workshop. Students will be invited to all Democracy under Threat events during the 2019-2020 academic year, including a Spring 2020 Conference, “Democracy under Threat in Times of Populism and Racial Nationalism” that will be held at the University of Minnesota in partnership with Howard University, Morehouse College, and Spelman College.

Yuichiro Onishi
Asian American Studies

Yuichiro Onishi is a scholar of critical race studies, teaching in the Department of African American & African Studies and the Asian American Studies Program. Trained as a historian, he writes about the relationship between race and social movements in America and beyond, particularly in the context of the African American-led freedom struggle and Afro-Asian solidarities. He grew up in Tokyo, Japan and came to the United States just before starting middle school. He attended schools in the suburbs of New York and Chicago and eventually found his way to Minnesota to attend college.

Malinda Lindquist
History

Malinda Lindquist is an Associate Professor of History. She is working on a history of the “achievement gap,” a history of educational segregation, desegregation, and resegregation in the Midwest, and a project on the civil rights and black power movements. Before joining the department she worked at the Joint Center for Political and Economic Studies, a non-profit, think tank in Washington, DC., where she analyzed the impacts of economic, educational, and health policies on African Americans. In her spare time, she enjoys fishing, biking, aikido, reading mystery books, and binge watching sci-fi series.
## Freshman Seminar Notes
Use this worksheet to track the seminars you are interested in taking.

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