Seminars for Spring 2018

*Please know that the following criteria will be considered for registration for all Honors Seminars:

1. Seniors will be given priority to register for Honors seminars.
2. We will consider the student’s progress towards the completion of their Honors Baccalaureate (i.e. number of Honors credits taken, second language fulfillment status, and a cumulative GPA of 3.5 and above).
3. The seminar is advantageous towards the student’s field/s of study and/or future career plans.

Design Thinking

**HONR 494-001 (4 credits)**

**Prerequisites:** UH/HONR 201 & UH/HONR 202, or UH/HONR 301

**Time:** Monday/Wednesdays 10:00 – 11:50 am

**Place:** CHVR 102

**Instructors:** Professors Amanda Rutherford, Department of Mechanical and Industrial Engineering and Brad Stanton, Department of Industrial and Management Systems Engineering

**Course Description:**

In this upper division seminar course, seminar students will learn to expand their abilities to solve real-world design problems by applying the methods of Design Thinking. Students will collaborate in multi-disciplinary groups to design and implement human-centered solutions. Students will utilize campus innovation resources such as the DSEL space in Cheever Hall and the MSU Makerspace. While ALL majors are highly encouraged to register for this seminar, we especially seek arts, humanities, business and health sciences majors. The seminar is capped at 18 and no more than 50% of its students will be from any given college.

Mandy is a full time instructor and a graduate of the MSU Honors program (2001). Currently, she teaches Multidisciplinary Engineering Design in the College of Engineering and is the faculty point of contact for the newly launched MSU Makerspace. Prior to MSU, she was a Technical Staff Member at Los Alamos National Laboratory.

Brad taught high school English for five years before going back to school for engineering where he studied the bidirectional reflectance distribution of various snow surface morphologies as part of a NASA funded research project. He now teaches for MSU in both the engineering and honors colleges. He is interested in inspiring students to explore interdisciplinary design through collaborative efforts between educators across all colleges and see the MakerCAT space as an excellent focal point for this effort.
Critical Perspectives in Leadership

HONR 494-002 (4 credits)
Prerequisites: UH/HONR 201 & UH/HONR 202, or UH/HONR 301
Time: Tuesday/Thursday, 5:10 – 7:00 pm
Place: Quad F, 105
Instructor: Professor Richard Broome, Jake Jabs College of Business & Entrepreneurship

From local news to world events, leadership issues permeate every aspect of our daily lives. The purpose of this course is to encourage students to develop and exercise critical thinking skills about the changing character of leadership. Students will discuss and examine in depth the many significant, diverse issues that impact leadership in the 21st century.

Student will explore:

-- Historical and contemporary theories of leadership
-- The explosion of technological advances in the 21st century, which in conjunction with massive globalization, are having a significant impact on world leaders
-- Crisis leadership
-- Recent societal changes that impact leaders
-- New definitions of global power within a cyber world
-- The impact of evolving values and ethics on decision-making
-- Gender, race and the cultural intelligence aspects of leadership
-- The looming leadership takeover by the millennial generation

During this course, students will be encouraged to embrace the belief that their generation does have the potential to transform the world via their understanding of these emerging global leadership issues.

Professor Broome has several years of significant leadership experience. He is a faculty member in both the College of Business and the Honors College where he currently teaches courses about leadership and entrepreneurship. He is also appointed to the faculty of The George Washington University where he helped create the curriculum and now teaches the leadership courses for a B.S. degree in Leadership for Global Disaster Response designed for military members of the U.S. Special Operations Command (Navy SEALs, Army Special Forces). For almost nineteen years he held organizational leadership positions at the NASDAQ stock market, Computer Sciences Corporation and Booz Allen Hamilton. Prior to this, Professor Broome spent twenty-seven years in the U.S. Army, entering as a private and retiring as a full Colonel. Professor Broome was asked by two Presidents of the United States to serve on the White House staff at the National Security Council, where he was a member of the crisis management leadership team at the NSC. He has a B.S. degree in Psychology from Utah State University, an M.S. degree in Systems Management from the University of Southern California, and an M.S. degree in Information Systems from the U.S. Naval Postgraduate School. He currently serves on the editorial board of the Bozeman Daily Chronicle and on the board of directors of HAVEN, a shelter for women who are victims of domestic violence. He is also the author of two suspense novels.

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Studies in World Building

HONR 494-003 (4 credits)
Prerequisites: UH/HONR 201 & UH/HONR 202, or UH/HONR 301
Time: Tuesday/Thursday 3:10 – 5:00 pm
Place: Quad F, 105
Instructor: Professor Kent Davis, Honors College

Course Description:

Students will explore the design and analysis of fictional worlds for narrative media, such as novels, films, graphic novels, and plays. Through collaborative examination of these narrative works the class will delve into the incorporation of cross-disciplinary elements—including mythology, history, anthropology, ethics, politics, biology, economics, geography, and technology—in the construction of fictional settings, as well as to scrutinize their impact on our own world. The study of these fictional works is geared toward a project-driven goal: each student constructing their own original fictional setting.

In the current professional and academic climate, where the abilities to creatively problem-solve and initiate innovative content are increasingly primary indicators of success, much can be learned from an active examination of the constructs of other innovative thinkers. An equally large amount can be learned by honing one's own creative processes.

The final benefit of such a study is that it can open student architects, scientists, teachers, engineers, and yes, even writers, to the possibility that the way the world is, is not necessarily the way that it could be.

Kent Davis has taught in the Honors College since 2009, and has spent most of his life making stories as a writer, actor, and game designer. The third volume in his critically acclaimed fantasy adventure trilogy for kids—A Riddle in Ruby—is slated for release by HarperCollins/Greenwillow Books in November, 2017. He holds a B.A. in English from the University of Pennsylvania and an MFA in Theater from UC, San Diego.
America’s Evolving Identity and the Refugee Experience

HONR 494IH-001 or HONR 494RH-001 (4 credits)
Prerequisites: UH/HONR 201 & UH/HONR 202, or UH/HONR 301
Time: Monday/Wednesday 2:10 – 4:00 pm
Place: Wilson Hall, Room 2105
Instructor: Professor Jaime Jacobsen

Course Description:

This seminar will focus on America’s evolving identity and the refugee experience. We will explore how American culture and identity have been shaped and influenced by refugees from a historical perspective, and we will examine the contemporary role of mainstream media in understanding the global refugee crisis through studying personal stories, as well as creating our own. A key component of the course will be a BreaksAway: Refugee Focus trip with the Office of Student Engagement at MSU during spring break (March 2018), in which students will volunteer with a refugee resettlement agency, Lutheran Social Services of the Southwest. During the trip, students will help refugees from troubled nations throughout the world establish new lives in Phoenix, Arizona, as well as create short documentary pieces that explore the hopes, dreams, and fears of refugees and their host communities. Upon the conclusion of the semester, students will share their creative work and experiences with the MSU community. Note: There is a $350 Trip Fee for this course, which will cover travel, food, lodging, and programming costs associated with the BreaksAway trip.

Professor Jaime Jacobsen is an award-winning documentary filmmaker whose films explore the intersection of science, art, and culture. In addition to making movies, Professor Jacobsen has taught as an Assistant Professor of Media Studies at Notre Dame University-Louaize in Beirut, Lebanon, from 2013-2016, as well as in the Honors College at MSU. She is a graduate of MSU’s MFA program in Science & Natural History Filmmaking.

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Human Nature

HONR 494IH-002 (4 Credits)
Prerequisites: UH/HONR 201 & UH/HONR 202, or UH/HONR 301
Time: Wednesday, 3:10 – 6:20 pm
Place: Wilson Hall, Room 2274
Instructor(s): Professor Robert Rydell and Distinguished Guests

Course Description:

What exactly is human nature and why do answers to that question matter so much? This seminar examines the problem of human nature from multiple perspectives in the sciences, the humanities, the social sciences and the arts with a view towards encouraging students to “dive deeper” (the phrase is from Moby Dick) into issues that
have been fundamental to thinking of ourselves—and our future—as human beings. To what extent do we have free will? How important is “nurture” to understanding our “nature” and vice versa? How do ideas about human nature inform thinking about government and society? Why do ideas about human nature change? Does human nature itself change?

*Professor Rydell is a historian who specializes in the study of American thought and culture. He is especially interested in understanding the intersections between science, the arts, and the humanities and the questions these areas of inquiry raise about the human prospect. Foundational to understanding the human prospect is trying to understand human nature—that is, our complex biological and cultural identities and our capacities to change ourselves and our world for the better or otherwise.*

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**Information Ethics and Privacy in the Age of Big Data**

**HONR 494CS-001 (4 credits)**

**Prerequisites:** UH/HONR 201 & UH/HONR 202, or UH/HONR 301

**Time:** Tuesday/Thursday 10:00 – 11:50 am

**Place:** Library Innovative Learning Studio (ILS)

**Instructors:** Sara Mannheimer and Scott Young, Assistant Professors, Library

**Course Description:**

This discussion-based course explores the ethics and privacy of information in our contemporary society. We will critique information production and consumption behavior across contexts, ranging from information shared on social media to government surveillance on the web. Students will learn ethical theory and practice from an interdisciplinary perspective by examining the ethical guidelines of various fields through case study analysis. Students will also learn new practical skills related to privacy on the web, including the tools and practices of encrypted communication. At the end of the semester, students will have a firm understanding of information ethics and web privacy. Students can apply these new concepts and skills to enhance civic engagement and protect privacy for themselves and others.

*Sara Mannheimer is an Assistant Professor and Data Services Librarian at Montana State University Library. Her work focuses on data sharing, digital preservation, and the social, ethical, and technical issues surrounding data-driven research.*

*Scott W. H. Young is an Assistant Professor and Digital Initiatives Librarian at Montana State University Library. His work focuses on user experience and design, community building with social media, and web privacy.*
Radical Creativity

HONR 494RA/RN-001 (4 credits)
Prerequisites: UH/HONR 201 & UH/HONR 202, or UH/HONR 301
Time: Wednesdays / 1:10 – 4:40 pm
Place: TBA
Instructors: Associate Professor Sara Mast/Art, Assistant Professor Nicolas Yunes/Physics, Adjunct Instructor Jessica Jellison/Architecture

Course Description: [https://www.youtube.com/watch?v=KuBP41Pl2jE](https://www.youtube.com/watch?v=KuBP41Pl2jE)

This unique, interdisciplinary honors seminar, co-taught by professors in Physics, Art and Architecture, is designed for students from multiple disciplines representing the sciences and the arts. While preference will be given to Honors students, non-Honors students will be considered for admission to the course pending approval by the instructors. The goal of the course is to enable students to explore and enhance their creativity through the communication of complex physics and astronomy concepts through art. Readings, videos, podcasts and discussions will spark the development of creative problem-solving and exploration within small, interdisciplinary groups. Instructors as well as visiting artists will bring each discipline to life through a range of experiential exercises that include video, music technology, spoken word, drawing and movement. In the second half of the semester, each group will collaborate in the creation of an immersive ArtScience installation that will address a self-generated problem. Each installation will then be exhibited in a public venue on campus or in the Bozeman community. A conceptual and methodological example of this is the Black (W)hole installation ([www.blackwhole.montana.edu](http://www.blackwhole.montana.edu)) that the faculty proposing this course created as part of the larger Celebrating Einstein event of 2013. Black (W)hole succeeded in demonstrating how Einstein’s black holes curve the spacetime continuum through an immersive experience of data visualization and sonification of gravitational waves. Students that successfully complete the course will acquire a range of collaborative skills and the ability to self-ignite their creativity and focus it to communicate complex ideas in innovative ways. Follow this link to view a video better describing this seminar: [https://www.youtube.com/watch?v=KuBP41Pl2jE](https://www.youtube.com/watch?v=KuBP41Pl2jE).

All applicants must complete an application. The application will consist of a 1 page (single-spaced, font size 12) document that indicates the student's major/s, academic interests, and the reason why they wish to take this course. The short essay must be submitted to Dawn Major by November 17, 2017.

*Professor Sara Mast is a visual artist and her paintings are included in both public and private collections in the United States and abroad. Her work is included in several publications that include Encaustic Painting: Contemporary Expression in the Ancient Medium of Pigmented Wax, by Joanne Mattera*
Assistant Professor Nicolas Yunes specializes in Einstein’s theory of General Relativity, black holes and neutron stars. With over 130 publications and the recipient of numerous awards, his studies have laid the foundations that allow for tests of Einstein’s theory with gravitational wave and electromagnetic observations of compact objects. Yunes is also very involved in science communication through the creation of innovative events that transcend the boundaries between art and science, such as the Celebrating Einstein Science Festival and Rhythms of the Universe.

Adjunct Instructor Jessica Jellison is a licensed architect registered in Montana and Idaho, operating her private practice out of Bozeman. Jellison has instructed part-time at MSU School of Architecture teaching Architectural Design and Architectural Graphics since 2009, and she was a Research Associate for the Creative Research Lab formerly within the College of Arts and Architecture coordinating applied research and creative projects that were interdisciplinary and collaborative. Jessica is one of eight individuals of The Einstein Collective working collaboratively on artscience immersive installations, allowing her to combine her love for art and science and her architectural expertise designing space.

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Occupation and Ownership of Desire:  Mapping the West

HONR 494RA-002 (4 credits)
Prerequisites:  UH/HONR 201 & UH/HONR 202, or UH/HONR 301
Time:  Monday/Wednesday  3:10 – 5:00 pm
Place:  Cheever Hall, Room 102 (DSEL Lab)
Instructor:  Bradford Watson, Assistant Professor of Architecture

Course Description:

The National Park Service founding mission (1918) describes its role “to conserve the scenery and the natural and historic objects and the wildlife therein and to provide for the enjoyment of the same in such manner and by such means as will leave them unimpaired for the enjoyment of future generations.” Yellowstone National Park attracts more visitors (approximately 4.25 million in 2016) than the population of Idaho, Montana and Wyoming combined for this “enjoyment” of nature. The 310 miles of paved roads, over 1,500 buildings and 750 employees allow visitors to consume wilderness with ease.

The Western landscape is not only drawing people to national parks but has created an ideal of inhabiting and controlling the West for those who seek the romance of the frontier, but perhaps not its realities. Be it for a holiday away from city life, or for the permanent retreat from society, people have flocked to this region to experience the “Last Best Place”. Presently towns like Bozeman, MT outpace the national growth
(averaging 36% growth per decade since 1870) and campaigns like “Come Home to Montana” encourage people to telecommute to the city from nature. The current Montana “Get Lost” campaign provokes an escape from urbanized life to the wilderness. The enticement of tourists (in Montana presently 10 times the population annually) and new residents is not a recent occurrence. After its reorganization in 1933 the NPS began a strong advertising campaign which generated a series of posters through the WPA that framed the West as something to be consumed. The NPS mission clearly predicted the difficulty facing the West - how to enjoy this place in a way that allows it to persist.

This seminar will utilize the methodology of mapping and interdisciplinary teams to examine the present day occupation of the Mountain West region through the lens of territory and question our occupation of this place. It will examine our role within the ecology and the implications of our growing visitation and population. It will explore the interconnected relationships, not always visible, that have informed the place and set our current trajectory to find new opportunities. If we accept the premise that we might be “loving these places to death”, how do we proceed as we are inextricably tied to the West? This seminar will ask if our occupation and enjoyment of these places can shift from the mentality of “leave no trace” to one of mutualistic benefit?

Bradford Watson is a licensed architect who spent 12 years in professional practice with an emphasis on cultural and performing arts design and planning prior to joining MSU. His current research examines the occupation of the Mountain West and the consumptive nature of that occupation, both through resource and experiential extraction. He has undertaken extensive research on the displaced terrain of Butte, Montana resulting from its history of extraction -- resulting in a new landscape that can be reconsidered as a topography of possible occupation and intervention through new reclamation strategies. He has been awarded a small project grant through the Butte Natural Resource Damage Council to reclaim the former Bonanza Mine Dump as a community asset and economic generator through BMX. His research has been presented and published internationally.

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