

W. Kennerly

Sat/Sun 7:00-9:00 pm/BO 101

A topical workshop, seminar, discussion group or lab/studio experience sponsored through the Honors Forum. HF 200 may be offered as an optional "honors" credit linked to a regular course offering at the 200 level, or as a freestanding academic experience open to Honors Forum and other highly motivated students.

HF 200-003

PLTL for CH 125 Princ of Chemistry

1 Credit

W. Kennerly

M 7:00-9:00 pm/BO 102

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HF 200.004-008 - HF Uncertainty Clusters

J. Chohnoky

HF 200-004 Cluster I

Hidden Data

1 Credit

S. Mulligan

E. Halstead

C. Talley

J. Sullivan

W 12:20-1:40/Zankel 215

In order to ask sophisticated questions about the world, we must build theories in the absence of observable data. For example, in the field of astrophysics, our beliefs about dark matter don't come from direct observation: we can't see the data that we would need to see in order to measure it directly. Similarly, young children have the daunting task of learning about other people's beliefs, but can never actually get access to the contents of others' minds. Or, drawing from the world of international business and politics, cyberwar operations are often conducted anonymously, responding to unknown actors and employing imperfect knowledge, with cybersecurity approaches relying on dynamic resilience strategies. Finally, in the world of literature, we confront the difficulties of choosing between competing frameworks to interpret data we can't see and deciding which story to tell based on the little information we have. How do we learn from the world when we don't have access to the data we need to directly test our theories? In this course, we will ask how and what we can learn from hidden data. We will consider test cases from astrophysics, psychology, international affairs, and literature.

HF 200-005 Cluster II

Mind the Gap

1 Credit

J. Dym

J. Chohnoky

B. Bogin

J. Fawcett

W 2:30-3:50/Harder 203

Imagine what is outside a photograph's frame, the words not written into a diary, misremembered events, the space between moments or thoughts, the missing layers of rock and partial fossils of the geologic record. How can we learn from and about what is not there? Most academic arguments build on observed or researched evidence to develop hypotheses, or models, to explain reality. Although we can do our best to identify and evaluate alternate explanations, many factors -- from incomplete evidence to cultural bias -- can influence our conclusions. In this one-credit Honors Forum course, we invite you to 'mind the gap,' as we learn to find and listen to the silences, identify and evaluate assumptions, and welcome the opportunity to learn from what is missing.

HF 200-006 Cluster III Truth, Mystery & Getting it Done 1 Credit

**A. Ernst
T. Freiermuth
M Estapa
K. Baustian**

Th 12:20-2:00/Dana 171

How do you establish your understanding of a subject or a principle when you don't have all the information? What is the point of the scientific enterprise? How do we know what we know, and how do we act when we don't know but still need to get things done? Join us for an all-you-can-eat smorgasbord of intellectual delight addressing these questions. Dishes will include geobiological primordial soup, archeological casserole, a 17th C French soufflé of science and faith, and for dessert, is the scientific proof in the political pudding?

HF 200-007 Cluster IV Uncertain Nature 1 Credit

**K. Nichols
R. Overbey
T. Alemu**

T 3:40-5:00/Dana 165

How do we know where we are? How do we know what happened in the past? How do we predict what will happen in the future? In this interdisciplinary course we investigate the models humans use to understand the world, and the techniques we use to navigate uncertainty. We will begin by considering key questions about measurement and uncertainty in the geosciences. How do we measure and forecast natural hazards like earthquakes or volcanic eruptions? How do we address accuracy, precision, and error in location measurement? How do measurements without reported uncertainty affect ways of life and decision-making? We will then compare Maori indigenous knowledge and western science to understand how each epistemology addressed past uncertainty in nature and how they have been blended together to address the future. We will also use the debates of the Anthropocene to view the uncertain future of how we interact with the planet. Turning to religion in East Asia, we will see how kings used oracular divination to predict the future and avoid disasters, and how Buddhist theories of karma created radical new uncertainties about the past, present, and future. Throughout the course we will be thinking about how we measure, how we predict, and how our ways of knowing and systems of value affect our encounter with uncertainty.

HF 200-008 Cluster V Are You Sure? 1 Credit

**A. Frappier
J. Pitera
M Korre**

W 2:30-3:50/LIB Rm GIS

“Are you Sure?” Communicating Science and Thinking Critically about Claims

HF 215-001 Peer Health Education 3 Credits

**J. McDonald
Tues 10:00-11:50
Th 5:40-6:30**

An introduction to the concepts, principles, theory, and practice of health education, health promotion, and peer-based education. Students will engage with a variety of topics surrounding health, wellness, community health promotion, theories of behavioral change and leadership skill building through readings, class discussions, and opportunities for experiential learning. Throughout the semester students will research, plan, execute and evaluate educational

outreach materials and programs on various health and wellness topics relevant to college-aged students. Not for liberal arts credit.

HF 300-001 **Paleoclimatology Practicum** **1 Credit**

A. Frappier

T 2:40-3:30 or W 11:40-12:30 or W 4:00-4:50

This optional 1-credit Add-on complements the GE-311 seminar by providing an applied, hands-on experience in paleoclimate research methods. Under the instructor's guidance, enrolled students form a research team focused on a local project of interest. We select appropriate methods, perform analyses, and interpret results. By the end of the semester, students develop a presentation and write an abstract for submission to the Geological Society of America's Annual or Northeastern Section meeting. This year's project may explore new a paleo-oceanography tool using geochemical analyses of enigmatic fossils of animals that lived in warm tropical seas above the mysterious dead zones that now form New York State's Marcellus Shale. An organizational meeting for interested students will be held during the first week of classes, to select one of the following classtimes: Tu 2:40-3:30 or W 11:40-12:30 or W 4-4:50pm.

HF 315.001-008 **Adv. Peer Health Education** **1 Credit**

J. McDonald

An expansion of concepts covered in Peer Health Education by allowing students to fine tune their health promotion and peer counseling skills. Students will select specific areas of interest and will work closely with other Peer Health Educators and the instructor to plan, implement, and rigorously evaluate outreach programs on campus. The course will focus on building leadership and communication skills and on deepening the expertise of the students on college health related issues.

Prerequisites HF 215 and permission of the instructor.

Not for liberal arts credit. May be repeated for credit.

MA 126H-001 (Fr), 226H-001 (So), 326H-001 (Jr./Sr.) **Honors Problem Solving** **1 Credit**

R. Roe-Dale

W 4:00-5:20

Students at all three levels will work collaboratively on problems posed in various undergraduate mathematics journals and other sources. Solutions to journal problems will be submitted to the journal editors for acknowledgment and possible publication. Problems are taken from all areas of specialty within mathematics.

Prerequisites: QR1.

May be repeated for credit. Must be taken S/U.

MA 275H.001-011 **Mathematics Research** **1 Credit**

M. DiMaio

J. Douglas

S. Ederer

M. Hofmann

R. Hurwitz

L. Oremland

R. Roe-Dale

C. Szabo

R. Trousil

D. Vella

M Huibregtse

Time/Location: TBA

Exploration of a research topic in mathematics. The students, in collaboration with a faculty mentor, will participate in a research project in a particular area of mathematics which may be related to the faculty member's research program. Students may only take four MA 275H courses in their careers and may take no more than two in any given semester. If two are taken in a single semester, each must be a different section. MA 275H may not be counted toward the mathematics major. Must be taken S/U.

MA 326H-001

Hon: Prob Solving (Jr/Sr)

1 Credit

R. Roe-Dale

W 4:00-5:20/Harder 201

Students at all three levels will work collaboratively on problems posed in various undergraduate mathematics journals and other sources. Solutions to journal problems will be submitted to the journal editors for acknowledgment and possible publication. Problems are taken from all areas of specialty within mathematics.

Prerequisites: QR1.

May be repeated for credit. Must be taken S/U.

SO 211H

Hon: Sociologic Imagin

4 Credits

J. Brueggemann

T/Th 11:10-12:30/Ladd 207

A review of "great works" that have made an impact in the field of sociology. This course will examine a number of classic and contemporary social scientific books. Students will investigate the content and perspective of sociology, the defining questions of the discipline, and the "sociological imagination." This will entail exposure to important sociological ideas and arguments as well as some sense of the intellectual history of the field. This course will emphasize informed and engaged discourse about the big ideas of these great works.