



Spring 2015 Honors Seminars

Seminars are restricted to students currently enrolled in the College Honors Program through College of Letters and Science.

These **two-unit** courses provide an opportunity for research exploration in various disciplines and consider advanced studies beyond college. To earn honors credit, seminars must be completed with a **letter grade** of B or higher. **Eligible students may take 8 units maximum of INT 84 seminars and 8 units maximum of INT 184 seminars.**

Add Codes for enrollment are made available only by the professor of the course. Please contact them directly for add codes during your assigned pass time.

**All Honors Seminars are 2 units.
Consult GOLD for additional course details.**

Please note if your class is not a 10-week course the add/drop deadline may be earlier.

Lower-Division Seminars:

**INT 84PD: Orientation to Biomedical Research and the Practice of Medicine
Professor Thomas Weimbs – Molecular, Cellular, and Developmental Biology**

**Day: Wednesdays
Time: 4:00-5:50 PM
Location: HSSB 1237**

Enrollment Code: 26088

This class is for 2nd year students who are serious about a career involving biomedical research at the MD or PhD level. There will be numerous invited guest panelists (faculty, senior students, advisors, biotech industry scientists, clinicians) and the class is mostly in Q&A style. You will learn about research opportunities on and off campus, how to get into a lab and how to make the most out of it to become competitive for admission to top graduate and medical schools.

Thomas Weimbs is a professor in MCDB and reached the Cell Biology Lab and other classes. The major focus of this research laboratory is the investigation of molecular mechanisms underlying polycystic kidney disease. Several graduate students, postdocs and undergrads conduct research in his lab.

Please contact Scott Kassner for add codes: skassner@lsc.ucsb.edu

INT 84TD: The Alaskan and Arctic Environments Under Siege
Professor Tommy Dickey – Geography

Day: Tuesdays & Thursdays
Time: 11:00-11:50 am
Location: ELLSN 2620

Enrollment Code: 26104

This honors seminar class introduces freshman and sophomore students to the world of scientific researchers using an Arctic environmental theme. This class will increase your understanding of the Arctic and Alaska by studying their people, geography, history, economics, climatology, oceanography, and ecology as well as their many global influences.

Professor Dickey is a Secretary of the Navy/Chief of Naval Operations Chair in Oceanographic Sciences. His interdisciplinary research has included nearly 150 oceanographic cruises and has been conducted in most of the major oceans. He has taught over 12,000 students and often incorporates his Great Pyrenees therapy dogs in his teaching and community service.

Email: tommy.dickey@opl.ucsb.edu

INCLUDES 3-DAY FIELD TRIP

INT 84ZA: Owens Valley and the LA Aqueduct
Professor Jordan Clark – Earth Science

Dates: Friday, April 10, 17th, 24th and May 8th 10:00-11:50 am, and
Friday, May 1st - Sunday, May 3rd (3-day field trip excursion)
Location: Webb Hall 1030A

Enrollment Code: 59550

This class focuses on a three-day field trip that will leave on Friday morning, and return on Sunday. During the trip we will stop at a number of important sites related to the LA Aqueduct including Mono Lake. Also, the class will meet three times prior to our departure and a concluding meeting after the excursion, to discuss relevant topics related to the field trip and to work out logistics for the trip.

Dr. Clark is an environmental scientist who works in geochemistry and hydrology. Much of his current research relates to water supply problems in California. In particular, he

investigates groundwater flow near Managed Aquifer Recharge sites. He has taught a version of this class numerous times.

Email: jfclark@geol.ucsb.edu

Upper-Division Seminars:

INT 184DL: Variational Principles In Mathematics, Physics, and Sciences
Professor Denis Labutin – Mathematics

Day: **Thursdays**
Time: **4:00-5:50**
Location: **HSSB 1231**

Enrollment Code: 59907

Such diverse equations in modern sciences as Einstein equations in general relativity, Yang-Mills and Maxwell equations in field theory, free boundary problems in engineering, and many others share a fundamental common feature. All of them follow from the variational (Euler-Lagrange) principle in different manifestations. Interestingly enough, understanding the main variational ideas and calculations requires essentially just the knowledge of the multivariable calculus (5B). The first objective of the seminar is to understand the basics of the variational calculus and the derivation of the fundamental equations in sciences. In contrast with experimental subjects, it is difficult to get a taste of the research work in theoretical areas of sciences and engineering at the college level. The second objective of the seminar is to give the participants an idea how theoretical research is done in science.

Professor Labutin has a PhD from Australian National University. His research interests include partial differential equations and their applications in geometry.

Email: labutin@math.ucsb.edu

INCLUDES 1-DAY FIELD TRIP

INT 184MM: Rediscovering Museums
Professor Mark Meadow - History of Art & Architecture

Dates: **Friday, May 1st & Friday, May 8th 2:00-3:50 pm, and**
 Saturday, May 9th all day field trip 9:00-6:00 pm
Location: **HSSB 4202**

Enrollment Code: 26351

This seminar examines the museum as an institution and a set of cultural practices. Why do we have special buildings dedicated to looking at objects? What are our expectations about museums and what expectations do museums have about their visitors? How do museums shape our viewing experience? We will explore these and other questions in two two-hour classroom discussions and an all-day field trip to Los Angeles.

Professor Meadow is an art historian who specializes both in Northern Renaissance art and in the History and Theory of Museums. He led a 10-year research project on the collections of the University of California and designed an innovative museum studies program, "Museums, Collections and Cultural Politics," for Leiden University in Holland.

Email: meadow@arthistory.ucsb.edu

INT 184PD: Introduction to Clinical Medicine

This course is designed to provide students interested in a medically related career an introduction to clinical medicine. Upper-division standing and consent of instructor required. The selection process is competitive. Honors students interested in INT 184PD should review the course requirements (<http://www.duels.ucsb.edu/honors/health>) and if eligible, email Dr. Stephen Blain, sblain@ltsc.ucsb.edu

INT 184DH: Introduction to Clinical Medicine **(This course is for those who have already taken INT 184PD)**

This course is designed to provide students interested in a medically related career an introduction to clinical medicine. Upper-division standing and consent of instructor required. The selection process is competitive. Honors students interested in INT 184DH should review the course requirements (<http://www.duels.ucsb.edu/honors/health>) and if eligible, email Dr. Stephen Blain, sblain@ltsc.ucsb.edu

INT 184PS: On the Trail of the Iron Mask **Professor Paul Sonnino – History**

Day: Fridays
Time: 1:00-2:50 pm
Location: BUCHN 1934

Enrollment Code: 59857

Students will view the movie "Man in the Iron Mask" starring Richard Chamberlain while also reading Dumas novel 'On the Trail of the Iron Mask. A short paper will be required during the quarter.

Professor Sonnino is in the process of publishing his book "On the Trail of the Iron Mask," which contains the solution of the mystery. As in the previous seminars, we will begin by studying the legend, and the key documents in the solution of the mystery. But in this seminar, after we work on the documents, students will go on to chapters of the entire book and discover the solution.

Email: PMSONNINO@aol.com

INT 184ZF: Reacting to the Past: The American Revolution in New York City
Professor Ann Marie Plane – History

Day: Monday & Fridays
Time: 10:00-10:50 am
Location: HSSB 4020

Enrollment Code: 59964

This seminar provides an in-depth exploration of critical documents and decision points of the American Revolution, through a tightly focused role-play experience around conflict between Patriots and Loyalists in New York City. Students conduct original research on individuals, ideas, and situations during this founding conflict. Emphasizes law, politics, and dispute resolution. For more detailed description see <https://reacting.barnard.edu/curriculum/published-games/patriots>

Professor Plane is a historian of Colonial America with a specialty in Native American/European relations. She has authored books on the history of marriage and sexuality, and on the history of dreams and dreaming in colonial New England. A former role-play interpreter, she is interested in deepening students' engagement with the past through intensive role-play interactions in class.

Email: plane@history.ucsb.edu

INT 184ZG: A Tangled Tale: Knotty Aspects of Natural Phenomena
Professor Kenneth Millett – Mathematics

Day: Tuesdays and Thursdays
Time: 12:30-1:20
Location: SH 4519

Enrollment Code: 59865

The seminar will begin with an investigation of basic facets of knotting, linking and entanglement in nature, both historical and current. Depending on participant interest,

one may continue by looking at polymers or proteins, or other filament like structures perhaps with a bit of a side trip to look at knots in the art of Leonardo da Vinci.

Professor Ken Millett studies knotting, linking, and entanglement in filament like structures in 3-dimensional space (polymers, DNA, proteins, solar storms) as well as the more theoretical facets of geometric topology.

Email: millett@math.ucsb.edu

We encourage you to continue to check our website for additions to our **Honors Seminars** offerings.

<http://www.duels.ucsb.edu/honors/curriculum/courses>

Please see the Section list online Spring 2015 Honors Sections.