Honors Seminars are listed under the course number UGS 200H in the Schedule of Courses. The seminars are 3 credit courses that extend through both Fall 2011 and Spring 2012 semesters. Enroll in the 3 credit UGS 200H section for Fall 2011; the Credit/No Credit grade will be extended and reported at the conclusion of Spring 2012. UGS 200H is intended for students not participating in the Professorial Assistant program.

Section 001 - FIELD AND LAB INVESTIGATION OF A NEWLY DISCOVERED GLACIAL DELTA IN NORTHERN MICHIGAN: Prof. Schaetzl, Geography, Tuesdays 8:30-9:50am, 120 Geography Bldg.

Students will study a large (11.5 mi²) delta that formed 10,000 years ago in a now-extinct glacial lake in Presque Isle County, northern Lower Michigan. The project will involve fieldwork in early fall (reconnaissance mapping and sediment sampling) followed by lab analyses of the sediments recovered from the delta, during winter and spring. Students enrolling in UGS 200H section 00x should have an interest in Earth, environmental, and physical sciences, and be willing to spend time working in the forested outdoors. Students will develop communication, research, writing and technical skills, and become especially familiar with Geographic Information Systems (GIS). Teamwork will be emphasized.


Student participants in this seminar will examine the shapes of sand grains in instrumentally acquired images of sand from the Mars Phoenix Lander landing site on Mars, and terrestrial analogs. Beginning with visual classification methods used by geologists to characterize and describe sediment-grain shapes in the field, student participants will examine a variety of grain types in representative mission images and make preliminary assessments of the transport and deposition / accumulation histories of the sands.
Section 003 – SCIENCE & SOCIAL MEDIA: Prof. Brandt, Geology, Thursdays 8:30-9:50am, 306 Natural Science Bldg

Information is increasingly transmitted in “byte-sized” bits through various social media (Facebook, Twitter, Blogs). In this seminar participants will survey existing media to identify “best practices” and then apply these practices in creating and posting their own summaries of recent scientific research in various media. Participants will gain extensive experience in reading the technical scientific literature and in writing to communicate scientific concepts to a general audience.


Students will explore sustainability by studying the power and cooling of the High Performance Computing Center. Students will be introduced to sustainable design, scientific measurement, Computer Aided Design (CAD), High Performance Computing, and fluid dynamics, as well as related issues in economics, supply chain management and business. Students will study and model the energy consumption of a modern supercomputer and develop individual or small group research projects that investigate alternative designs to reduce power consumption, make use of waste heat, leverage efficient business practices, or otherwise increase the sustainability of supercomputing resources on campus.

Section 005- WEB USABILITY, MOBILE & SOCIAL MEDIA MARKETING: Prof. Coursaris, Telecommunications, Information Studies & Media, Tuesdays 9:10-10:00am, 171 Communication Arts Bldg.

Students will learn fundamental principles involved in web usability evaluation, and mobile/social media for marketing. The seminar will cover a range of usability topics, from the fundamentals of human-computer interaction to the research methods available for usability evaluation. It will also cover various social media vehicles as means to engage customers. This theoretical foundation will enable students to engage in either usability or social media marketing research. Students interested in marketing, advertising, public relations, web design, usability testing, behavioral research, and related topics are likely to find this seminar both highly informative and enjoyable. Previous exposure to websites and/or mobile devices, social media, and marketing would be useful, but not required.
Section 006 - POPULAR AND PROFESSIONAL DEBATES OVER VACCINES: Prof. Mark Largent, James Madison College, Wednesdays 9:10-10:00am, 319L South Case Hall

Since the late 1990’s, some parents have grown increasingly anxious about the growing numbers of vaccines they are obligated to have administered to their children. Claims about a potential link to autism as well as concerns that some vaccines might not be as effective as we first thought, have encouraged increasing numbers of parents to refuse to vaccine their children against a variety of childhood diseases. Students in this course will examine claims that have been made recently about vaccine safety and efficacy by examining popular and professional literature on the subject, including epidemiological studies, laboratory results, papers published in scientific journals, political challenges to mandatory vaccination, and the social and legal framework for challenging mandatory vaccination. Ultimately, students will design and carry out research programs on topics of their choosing and present their findings at the University Undergraduate and Research Forum.

Section 007 – COVERING MICHIGAN POLICY AND GOVERNMENT: Prof. Grossmann, Political Science, Mondays, 4:10-5:30, 217 Bessey Hall

Seminar engages students in the policymaking process in Michigan. It is organized around guest speakers, simulations, and field trips to see state government in action. Students will produce news articles and research materials for online public dissemination via the Michigan Policy Network at www.michiganpolicy.com. Each student covers a particular state public policy issue area of their choosing, such as energy & environment, health care, or taxes. Participating students will develop communication, reporting, research, writing and technical skills as they become civically involved and informed about state public policy.

Section 008 – HUMAN BRAIN READING USING FUNCTIONAL MAGNETIC RESONANCE IMAGING (fMRI): Prof. Huang, Radiology, Thursdays, 4:10-5:20pm, 139 Radiology – open to 2nd year students only

This research seminar will guide students in learning the principals involved in functional magnetic resonance imaging (fMRI) and the software used for analyzing fMRI data. The goal of the project is to allow a team to design and implement an fMRI experiment to compare brain activation among reading stories, solving math problems and viewing pictures. The cortical activation patterns will be used to establish a measure, and then the measure will be used to determine what tasks (reading stories or solving math problems or viewing pictures) the brain performed, providing a means of human brain reading.
Section 010 – LANSING MEDIA/THEATRE PROJECT: Prof. Dobbins, Theatre, Tuesdays 5:00-6:30pm, Rooms 10 and 1-Auditorium

In this research seminar, students will develop new methods for evaluating the effectiveness of media in theatrical performances. This research will take the form of developing metrics for the evaluation of the media technology and audience response to this technology.

Section 011- DECONSTRUCTING THE SILK ROAD: Prof. Ryu, Linguistics & Languages, Wednesdays 4:10-5:00pm, 222 Bessey Hall

This course analyzes the cultural representations of the Silk Road in various academic disciplines and popular media (e.g., world history, geography, literature, music, religion, tourism, films, photojournalism, fashion, dance, etc.). Specifically, this seminar will equip students with the critical concepts and tools indispensable for undertaking cultural analysis of representations of the Other.

Section 012 – MUSEUM EXHIBIT DESIGN FOR “EXTRAORDINARY SENSORY PERCEPTION (EoSP): THE ARTS OF SCIENTISTS AND SCIENCES OF ARTISTS”: Profs. R. Root-Berstein, Morgan and Alvarez, Physiology and MSU Museum, Fridays 8:30-9:50am, MSU Museum Auditorium-Conference Room

Arts and Sciences: As different as can be, yet as similar as twins. The exhibits that make up Extraordinary Sensory Perception will explore where Arts and Science meet and meld to make marvels that titillate the senses and tantalize the mind. Students will help to research individual scientists who make art and artists who make science and to then work in small groups with the faculty to design exhibits that will be displayed in the MSU Museum and its affiliates (including, possibly, the Smithsonian Institution and the National Science Foundation headquarters). Each student will identify the most exciting and interesting elements of their material and learn the visual and written, and hands-on means to best convey that to museum visitors through the development of exhibit models and prototypes.

Section 013- INTRODUCTION TO MATERIALS RESEARCH IN A SERVICE LEARNING FOR LEADERSHIP ENVIRONMENT: Prof. Boehlert, Material Science, Mondays 4:30-5:20pm, 2400 Engineering Bldg. (also 3507a/b Engineering Bldg.)

This seminar will allow students to learn about one of the most widely used tools in multidisciplinary materials-based research, a scanning electron microscope (SEM). Students will focus on SEM analysis of ceramics, composites, biomaterials, metallic alloys, etc. This honors seminar will also allow the students to use the knowledge they gained to teach K-12 students about SEM in a service learning for leadership environment. The students will also be responsible for performing a materials-based research project using the SEM and presenting their research through a poster display at the University Undergraduate Research and Arts Forum (UURAF) in April 2012.
Section 014- UNIVERSITY-COMMUNITY ENGAGEMENT-EVALUATING AN UNDERGRADUATE CURRICULUM: Profs. Fitzgerald, Farrell, Brown, Casey, Barnes and Springer, University Engagement and Academic Service Learning, Thursdays 3:00-4:20pm, Kellogg Ctr Rooms 93 and 6

MSU students have a long history of working with community partners to improve community well-being. In this seminar, participants will have an opportunity to assess the effectiveness of a newly developed online curriculum for freshmen and sophomore students. The curriculum is designed to improve service learning and civic engagement experiences with communities. Students will learn interviewing techniques, meet faculty and community partners, learn data analysis techniques, and help revise the curriculum content and format. In the process, students will learn more about effectively working in communities and contribute to a significant educational experience for other students.