

Approved Capstone Courses for the Sustainability Minor

(12/14/11)

Please Note: This listing was University Studies Capstone courses was prepared using the capstone course website. The list on the website was not complete for spring quarter. New capstone courses are offered frequently; students are encouraged to inquire before taking a course whether it would meet the requirement for this minor.

Addressing the Food Gap at p:ear

Sarah Dougher, sarahdougher@gmail.com

<http://capstone.unst.pdx.edu/courses/addressing-food-gap-pear>

p:ear is a downtown Portland organization that engages homeless and transitional youth, 15–24, using mentorship and the tools of education, art and recreation. p:ear's Kitchen and Food program provides hands-on training for youth in the areas of food preparation, nutrition, and the economics of eating. This capstone will partner with p:ear to engage students in scholarship about food culture, social justice and sustainability, developing independent research about homeless adolescents and food insecurity. Students will forge new relationships with food providers in the region to support p:ear's work, and determine other appropriate modes of engagement with the organization.

Effective Environmental Education

Matthew Collins, matthew@tryonfriends.org

<http://capstone.unst.pdx.edu/courses/effective-environmental-education>

The Effective Environmental Education Capstone explores approaches to outdoor education relevant to metropolitan natural areas. Students are trained as naturalists who guide school groups on field trips through Tryon Creek State Park located in southwest Portland. Course material covers local natural history, readings and discussions of approaches to and the importance of outdoor education, and basic steps to establish an effective learning environment. To learn more about the location of the class and programs offered by the Friends of Tryon Creek go to www.tryonfriends.org.

Environmental Education through Native American Lenses

Judy Bluehorse Skelton, judybluehorse@comcast.net

<http://capstone.unst.pdx.edu/courses/environmental-education-through-nat...>

What are Native American perspectives and how can they affect/inform environmental education? How does environment shape our lives and our relationships? How does your own heritage and culture impact who you are today and you relationships with the environment?

Environmental education in schools has focused primarily on scientific analysis and social policy. Neglected in this education is recognition of deeper cultural transformations that may need to accompany a shift to a more bio-culturally sustainable world. During our time spent in class and outdoors in natural areas, we will explore relationship-building, creative place-based projects, and analysis of current issues facing environmental education and Native American communities. Using all our senses, we will taste, listen, feel, smell, see and express our

relationship to the world around us. In collaboration with our community partner, the Native American Youth & Family Center, students will further develop their own skills and understanding for incorporation into their final class projects, and in their everyday lives.

Grantwriting for Sustainability

Tracy Dillon, dillont@pdx.edu

<http://capstone.unst.pdx.edu/courses/grant-writing-sustainability>

Students in this capstone will write a grant to support the operations of a nonprofit organization that promotes sustainable practices. You should expect to gain valuable experience with the grant writing process and to produce a "living grant" that you can include in a career development portfolio.

We will have several partners, each with multiple grant writing needs. You can work independently on a single project, or you can team up. All instruction is online, so your time is free to work at your own pace and to meet your community partners occasionally at mutually convenient times.

Neighborhoods and Watersheds

Barry Messer, messerw@pdx.edu

<http://capstone.unst.pdx.edu/courses/neighborhoods-and-watersheds>

This course is designed to give students an opportunity to learn about and become involved in improving watersheds in urban communities. Students will be introduced to basic concepts and practices related to urban watershed protection and conservation. Students will then directly participate in a community watershed project that will provide a base of experience for furthering the learning and appreciation for the work that goes into maintaining urban watershed health. This Capstone is part of the Community Watershed Stewardship Program, a partnership between PSU and the Bureau of Environmental Services, City of Portland. A main project for the capstone involves the organization of projects and design options for "greening" the PSU campus. In addition, students will work on a neighborhood watershed enhancement project with a community partner. Students will be expected to schedule time working with the community partner outside of class hours. The amount of time working on the field projects on the PSU campus and in the community will be an average of approximately 6–8 hours/week over the term. The schedule for field project will be decided between the students and the community partner.

Promoting Sustainable Living

Amy Minato, aminato@pdx.edu

<http://capstone.unst.pdx.edu/courses/promoting-sustainable-lifestyles>

In light of looming environmental crises, what can individuals do to change direction? In this course we collectively examine our society to determine which cultural values support, and which inhibit, sustainability. Students develop and facilitate sustainability opportunities tailored to youth for Northwest Earth Institute (NWEI) and the Center For Earth Leadership (CERL), local non-profit organizations that empower individuals and organizations to transform culture toward a sustainable and enriching future.

Class discussion centers on the first two books in the Northwest Earth Institute series, *Voluntary Simplicity* and *Choices for Sustainable Living*. Each student creates an entry for a youth manual on sustainability using NWEI materials. Working with the Center for Earth Leadership and using the created manual, students provide these sustainability activities to local youth groups.

Sustainable Food Systems and Educational Farms

Megan Hubbs, greenfarmmama@gmail.com

<http://capstone.unst.pdx.edu/courses/sustainable-food-systems-and-educat...>

*Due to the nature of this course, it will be held at Learning Gardens Lab (SE 60th Ave & Duke) with the exception of the first class, which will be held at the designated PSU classroom.

The time is ripe to be part of the growing sustainable food movement! This class addresses the current food issues that face urban citizens by holistically engaging students in the many layers of Portland's local food and farm culture. Students will critically analyze the state of our current food systems while being engaged in positive solutions to agricultural-related issues. The community partner and classroom is the Learning Gardens Lab, where students will gain hands-on farming experience, experientially explore their personal connection to food and the land, participate in the Learning Garden programs, and positively contribute to food security in our greater community. Students will also build relationships within the local food network through experiences at Ecotrust, Zenger Farm and the Oregon Food Bank.

Quality Assurance for Volunteer Stream Monitoring

Mary Ann Schmidt, maryanns@pdx.edu

<http://capstone.unst.pdx.edu/courses/quality-assurance-volunteer-stream-...>

Capstone students will coordinate and implement all aspects of the quality assurance project plan (QAPP) for the Student Watershed Research Project (SWRP)'s volunteer monitoring program. Students will work as a team to ensure data quality for the 25 high school groups involved in SWRP. This project requires training, classroom, and field support. This course will integrate chemical, biological and physical watershed analysis skills. In addition, students will be responsible for verifying macroinvertebrate and plant samples, performing field/lab analysis of duplicate water quality samples, and mathematically determining whether the accuracy and precision goals of the QAPP are being met. Students will also be responsible for data management, auditing of student data, providing feedback to data collectors, and evaluating the impact of SWRP on participating students. Spring Capstone Students will support the Annual Student Watershed Summit, where the high school students give both oral and poster presentations on their research projects.

Detection and Prevention of Aquatic Invasive Species

Angela Strecker, strecker@pdx.edu

<http://capstone.unst.pdx.edu/courses/detection-and-prevention-aquatic-in...>

Globally, freshwater ecosystems are at risk from a number of anthropogenic stressors. One of the foremost stressors is the spread and establishment of aquatic invasive species. Lake Oswego is an urban waterbody that is being met with a number of environmental challenges, and invasive species are a major concern to Lake Oswego Corporation, the lake managers. An important element of managing invasive species is early detection, thus students will be expected to review the biology and spread of aquatic invasive species, determine which species are likely to be invasive in Lake Oswego (and the greater region), design sampling protocols for early detection, field test the protocols, and write a report for Lake Oswego Corporation summarizing their findings. Students will also develop public relations materials to help educate lake users and residents on aquatic invasive species identification and prevention of spread. Students are expected to have a background in ecology and attend a one day field trip to Lake Oswego. Interested students must e-mail the professor in order to register for this course.

Community Greenworks

Cynthia Gomez, gomezcc@pdx.edu

<http://capstone.unst.pdx.edu/courses/community-greenworks>

This Capstone offers students an analysis of social justice; a framework that promotes successful civic engagement; and an application of these principles in community settings. Students choose from several projects that best fit interests, expertise and schedules, and complete team projects with community partners addressing a pre-determined need and promoting lasting change in the community. Projects will focus on the three areas of sustainability: social equity, the economy, and the environment.

Documenting Sustainability in the Pacific Northwest

James Hillegas, jvhillegas@gmail.com

<http://capstone.unst.pdx.edu/courses/documenting-sustainability-pacific-...>

In 1989, the World Commission on Environment and Development defined sustainable development as "[development that] meets the needs of the present without compromising the ability of future generations." As the 21st century progresses, the concepts of sustainable development and sustainability have become increasingly complex. Partnering with Northwest History Network, this class will explore the idea of sustainability by looking at its historical meaning and document sustainable business and cultural practices in the Pacific Northwest through the medium of recorded interviews. The focus of the course will change each quarter and has in the past included the death care industry, ranching, logging, urban agriculture, and recycling.

Communities and Resources of an EcoDistrict

Barry Messer, messerw@pdx.edu

<http://capstone.unst.pdx.edu/courses/communities-and-resources-ecodistrict>

The development of an EcoDistrict requires innovation in the way we configure our physical landscapes to maximize resource efficiency; this capstone examines the

opportunities for communities to participate in and learn from creating the shape of their place.

Indigenous Gardens and Food Justice

Judy Bluehorse Skelton, judybluehorse@comcast.com

Website: <http://capstone.unst.pdx.edu/courses/indigenous-gardens-and-food-justice>

American Indian and Alaska Native communities are suffering from the highest rates of obesity and diabetes in the country. This capstone will examine impacts of colonization on local and traditional foods, health and land management policies and the re-emergence of Indigenous practices with land, water, and food systems management. Revitalization of food sovereignty by reservation and urban Native American communities to reclaim health and address historical trauma will be central to student work. In collaboration with Oregon tribal communities, students will participate in the site assessment and design of edible and medicinal gardens at the Confederated Tribes of Grand Ronde reservation, one hour west of Portland.

Permaculture principles and indigenous land ethics will guide our process. Students will explore relationship-building, creative place-based projects, and analysis of current issues facing Native American communities. Class will meet off-campus for garden project.

Learning Gardens and Civic Affairs

Judy Bluehorse Skelton, judybluehorse@comcast.com

<http://capstone.unst.pdx.edu/courses/learning-gardens-and-civic-affairs>

In this Capstone, we will work with two community partners: Learning Gardens Laboratory that serves the Brentwood-Darlington neighborhood in SE Portland; and the Confederated Tribes of Siletz Indians tribal offices in outer southeast Portland. Class time will focus on issues of food security, significance of cultural/traditional foods, and community involvement in civic affairs. We will explore food systems and their role in addressing community health and social justice. We will participate in hands-on gardening activities, and develop materials or conduct research to assist in the design, promotion, understanding and management of urban gardens. Some scheduled class meetings will take place off campus at the Learning Gardens and Siletz tribal office sites, so please schedule accordingly. Some physical outdoor work and additional service time outside of class is required.

Portland's Water

Catherine Howells, chowells@pdx.edu

<http://capstone.unst.pdx.edu/courses/portlands-water-history-and-challenges>

Our community partner for this class is the Portland Water Bureau. This class will focus on the Bull Run watershed (the source of Portland's drinking water) and the workings of the Portland Water Bureau. We will research the history of the water system, water quality, current issues, and other topics that peak our interest during the term. The class will work with the Water Bureau to develop community

outreach products. Our community partner for this class is the Portland Water Bureau. This class will focus on the Bull Run watershed (the source of Portland's drinking water) and the workings of the Portland Water Bureau. We will research the history of the water system, water quality, current issues, and other topics that peak our interest during the term. The class will work with the Water Bureau to develop community outreach products.

Encouraging the stewardship of our shared resources

Celine Fitzmaurice, celine@pdx.edu

<http://capstone.unst.pdx.edu/courses/reclaiming-commons>

This course will focus on the concept of "the commons" – those resources that humans share and depend on to thrive and survive. Examples of the commons include clean air and water, shared scientific knowledge, or publicly funded resources such as parks, libraries and schools. Increasingly, many aspects of the commons are controlled by the market or private interests. Students in this course will partner with the "Oregon Commons" project (<http://theoregoncommons.org>) to raise public awareness of the commons and encourage stewardship of our shared resources.

Sustainable Rural Development in NW Argentina

Leopoldo Rodriguez, leopoldo@pdx

<http://capstone.unst.pdx.edu/courses/sustainable-rural-development-nw-ar...>

Where the pampas meet the Andes and tradition blends with modernity, nestled on a valley 3,000 feet above sea level, sits San Pedro de Colalao, a small town in Northwestern Argentina. Join us this Winter term in a capstone where we will work with community organizations towards the establishment of eco-touristic services. We start with 4 days in Buenos Aires, followed by two weeks in San Pedro de Colalao, where we will meet with town authorities and business people, explore natural and cultural attractions and visit with rural inhabitants, academics and NGOs. Our final report will evaluate the progress made during our stay, and suggest steps that the community and future capstones may undertake. Open to junior and seniors from all majors. Financial aid can be applied. **MUST SUBMIT A SEPARATE APPLICATION PRIOR TO REGISTRATION!** Application and information available online at: <http://oia.pdx.edu/ea/>. Application deadline is 10/31/2011.

Costa Rica Capstone

Jenna Padbury, padburyj@pdx.edu

<http://capstone.unst.pdx.edu/courses/costa-rica>

This capstone provides an opportunity to learn about Costa Rica through cultural immersion. The course includes a 2 ½ week service-learning program in Turrialba, Costa Rica. While in Costa Rica, students will conduct service in community-based settings such as schools, orphanages, organic farms or social service agencies. We will take field trips to a number of sites designed to enhance your understanding of Costa Rican history and culture as well as current social, political, economic, and environmental issues. In addition, students will study Spanish and stay with host families. Students meet three times during the Spring term to prepare for the time in Costa Rica. *This Capstone will be offered in Summer 2012.

Food, Democracy and Sustainability

Lisa Weasel, lisaw@pdx.edu

<http://capstone.unst.pdx.edu/courses/food-democracy-and-sustainability>

In this capstone, students will consider and participate in promoting the concept of "food democracy" and the related intersections of social, political, ethical, and technoscientific values and practices related to the concept of food justice. Students will work with residents and staff at two Housing Authority of Clackamas County residence sites to develop food security projects such as community garden design and building; garden education; assessments and evaluations, and community-engaged research to identify and document program impacts. The class includes both classroom consideration of scholarship and best practices, as well as fieldwork with residents and staff at HACC facilities. Students should expect to commit 2–4 hours of hands-on outdoor experience beyond scheduled classroom time, to take place at garden locations in Milwaukie and Oregon City.

Nature in the Neighborhood

Mitch Cruzan, cruzan@pdx.edu

<http://capstone.unst.pdx.edu/courses/nature-neighborhood>

The Nature in the Neighborhood (NITN) project grew out of the needs expressed by PSU students who desired avenues of involvement in local environmental issues, and the needs of local resource management agencies (THPRD, METRO, Portland Parks) that lacked resources to develop inventories and surveys of natural resources in the Portland area. This summer this capstone has been redesigned to serve majors in Biology and ESR. The course content and goals will assume students have an adequate background in ecology. In collaboration with METRO, we will focus our efforts this summer on work with Metro to evaluate factors promoting the spread of invasive false brome, and its impact on native plant communities. We will be developing research questions, designing data collection protocols, contributing to ongoing site monitoring, collecting and analyzing data, and writing final reports on our findings. To accomplish the broader goals of this project we will be forming multiple working groups, the number of which will depend to some degree on the interests and goals of participants in this capstone.

The Natural Food Industry and the Cooperative Business Model

Pedro Ferbel-Azcarate, pferbel@yahoo.com

<http://capstone.unst.pdx.edu/courses/natural-food-industry-and-cooperati...>

This Capstone will provide an orientation to the cooperative business model and the natural food industry. Students will gain hands on experience working with the community partner, People's Food Cooperative, on various food system related inquiries and will address different business strategies in the natural food industry and for cooperative businesses, specifically, and make the connection to broader themes including health and nutrition, food security and food politics, environmental sustainability, urban design, and community development.

Communicating Sustainability Through the Forest

Stephanie Wagner, stephanie@tryonfriends.org

<http://capstone.unst.pdx.edu/courses/interpretation-sustainability>

Spend your summer at Tryon Creek State Park, located just 15 minutes from PSU. Learn to effectively communicate ideas and issues surrounding sustainability. Experts from a variety of sustainability fields share their experiences. Course participants use this information to create informative, engaging programs for park visitors. Student learning will benefit from discussion, team work and interactive explorations. This class meets Tuesday and Thursday afternoons from 1:00 – 4:00 pm at the Tryon Creek Nature Center. More information is available at www.tryonfriends.org.

Solid Waste Reduction, Reuse, and Recycling

Shanna Eller, ellers@pdx.edu

<http://capstone.unst.pdx.edu/courses/solid-waste-reduction-reuse-and-rec...>

This Capstone partners with public and private organizations in the Portland Metropolitan Region to increase solid waste reduction, reuse, and recycling through community research, education, and outreach. Capstone students may be involved in activities ranging from designing resources to educate residents, to assisting business meet the requirements for mandatory business recycling, to researching how to reduce waste, increase recycling, and implement composting at public events.