

AGRY 59800: Ecosystem Services: Charting a Path to Sustainability

Fall 2012; 1 credit, **CRN: 60224**

When: Thursday, 3:30-5pm in 2-407 Lilly Hall

Lead Instructors: Sylvie Brouder, Jeff Volenec



Natural environments provide enormously valuable, but largely unappreciated, services that aid humans and other earthlings. It is becoming clear that these life-support systems are faltering and failing worldwide due to human actions that disrupt nature's ability to do its beneficial work. Using peer-reviewed literature, the course will address various aspects of ecosystem services, which may include how ecosystem services affect infectious and chronic diseases, what resources can be produced renewably or recovered by developing intense technologies that can be applied on a massive scale, social and technical capabilities needed to respond to abrupt changes in ecosystem services, agricultural and aquacultural systems that provide food security while maintaining the full set of ecosystem services needed from landscapes and seascapes, production systems for ecosystem services that improve human outcomes related to food and nutrition, methods to accurately value natural capital and ecosystem services, types of federal policy needed to maintain or improve natural capital and ecosystem services within the United States, including measuring and documenting the effectiveness of the policy, how an international trade system can include accounting for impacts on ecosystem services, and increasing the American public's appreciation of the basic principles of ecosystem services. Each student will be expected to read and discuss assigned literature each week and formally lead at least one discussion during the semester.