

NR 352 Ecological Economics Practice (3 credits) CRN 15784

WATER QUALITY AND THE FUTURE OF FARMING IN VERMONT Graduate Seminar

Course Time & Location

Spring 2019, Thursday 1:15-4:15 pm, Gund Institute Conference Room in Johnson House

Instructors:

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Course Description

Vermont faces twin dilemmas: our agricultural sector is at a critical juncture, and our “green” image is at risk because of water quality degradation in the state. Dairy farming is central to our state’s identity and culture, and it is the most significant contributor to phosphorus pollution in aquatic ecosystems. Dairy farmers are improving management practices, but public tolerance is rapidly waning, the dairy economy is in trouble, and farm-based practices to reduce phosphorus loading are expensive. Meanwhile, our lakes suffer from annual algae blooms, which have profound impacts on the quality of our water, quality of life, and other economic sectors such as tourism. Communities around the nation and planet face similar linked challenges. Vermont therefore has an opportunity to lead the way in nutrient stewardship that balances benefits to farming and the environment.

This graduate seminar will critically examine the potential for phosphorus management solutions to support Vermont's working landscape while protecting vital aquatic ecosystems. Following the model of Gund Institute Ateliers, we will use a transdisciplinary systems approach to explore and integrate insights from natural sciences, social sciences, and engineering. Emphasis will be placed on strategies that can reduce phosphorus loss to water, generate multiple ecosystem services, and compensate farmers for providing these public goods. The course will produce one or more proposed strategies, considered from biogeochemical, social, and economic perspectives, that have promise to address the challenge on a meaningful scale.

Gund Fellows Taylor Ricketts and Eric Roy will co-lead the atelier, with support from other Gund Fellows/Affiliates and diverse stakeholders from around the state. This course will satisfy the Ecological Economics in Practice requirement for Ecological Economics Graduate Certificate.

Grading

Course grading will be based on three elements:

- (1) An **individual presentation** early in the semester (Jan 24, Jan 31, or Feb 7) that describes your areas of interest relevant to water quality and the future of farming in VT. **(25%)**
- (2) A **group presentation** on April 25 summarizing the final course deliverable. **(25%)**
- (3) **Participation** throughout the semester, including attendance, participating in discussions and group work, and meeting assigned deadlines. **(50%)**

Course resources

- Link to the website
- Link to our google drive

Student Learning Accommodations: In keeping with University policy, any student with a documented disability interested in utilizing accommodations should contact ACCESS, the office of Disability Services on campus. ACCESS works with students and faculty in an interactive process to explore reasonable and appropriate accommodations via an accommodation letter to faculty with approved accommodations as early as possible each semester. All students are strongly encouraged to meet with their faculty to discuss the accommodations they plan to use in each course.

Contact ACCESS: A170 Living/Learning Center; 802-656-7753; access@uvm.edu;
www.uvm.edu/access

UVM's policy on disability certification and student support:
www.uvm.edu/~uvmppg/ppg/student/disability.pdf

Religious Holidays: Students have the right to practice the religion of their choice. If you need to miss class to observe a religious holiday, please submit the dates of your absence to me in writing by the end of the second full week of classes. You will be permitted to make up work within a mutually agreed-upon time.

Academic Integrity: The policy addresses plagiarism, fabrication, collusion, and cheating.
<http://www.uvm.edu/~uvmppg/ppg/student/acadintegrity.pdf>

Grade Appeals: If you would like to contest a grade, please follow the procedures outlined in this policy: <http://www.uvm.edu/~uvmppg/ppg/student/gradeappeals.pdf>

Grading: For information on grading and GPA calculation, go to www.uvm.edu/academics/catalogue and click on Policies for an A-Z listing.

Code of Student Rights and Responsibilities:

www.uvm.edu/~uvmppg/ppg/student/studentcode.pdf

FERPA Rights Disclosure: The purpose of this policy is to communicate the rights of students regarding access to, and privacy of their student educational records as provided for in the Family Educational Rights and Privacy Act (FERPA) of 1974.

<http://www.uvm.edu/~uvmppg/ppg/student/ferpa.pdf>

Promoting Health & Safety:

The University of Vermont's number one priority is to support a healthy and safe community:

- **Center for Health and Wellbeing** <http://www.uvm.edu/~chwb/>
- **Counseling & Psychiatry Services (CAPS)** Phone: (802) 656-3340
C.A.R.E. If you are concerned about a UVM community member or are concerned about a specific event, we encourage you to contact the Dean of Students Office (802-656-3380). If you would like to remain anonymous, you can report your concerns online by visiting the Dean of Students website at <http://www.uvm.edu/~dos/>

Final exam policy: The University final exam policy outlines expectations during final exams and explains timing and process of examination period.

<http://www.uvm.edu/academics/catalogue2013-14/?Page=allpolicies.php&SM=policymenu.html&policy=Exams>