

Global Commercialization of Environmental Technologies
University of Washington
Environmental Management Certificate Program
ENVIR 550/ BBUS 550
Spring 2003

Tuesdays and Thursdays 3:30-5:20
Mary Gates Hall 287
Office hours by appointment

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Overview and course philosophy

This course is designed in keeping with a fundamental precept: that solving the most important environmental problems of our era requires creative, multidisciplinary approaches. Specifically, as we focus on the market potential of environmental technologies, we believe that it is essential to bring together knowledge and models from the sciences, public policy, and business. As this is a capstone course, we intend to engage in some of the “great questions” of environmental management.

Objectives

The course has two equally important and fundamentally related purposes. First, students will work in multidisciplinary teams to evaluate and report on the potential (with respect to business, policy, and scientific criteria) of a promising and significant environmental technology. Second, students (individually and in teams) will address fundamental thinking and emerging ideas in the study of the relationship between business and natural environment.

Requirements, Expectations, and Grading

A detailed schedule identifies specific required preparation and assignments. In general, students are expected to demonstrate the level of motivation, responsibility, and quality of work consistent with the explicit and implicit expectations associated with graduate study at a leading research university. Each assignment must be completed and submitted by the beginning of the class session at which it is due. Every student will be prepared to make high quality contribution at every class session based upon assigned material. This requires study, not simply reading, of these assigned articles and cases. Strict adherence to University of Washington standards with respect to academic integrity is expected implicitly by enrollment in this course. If you have any questions, please do not hesitate to ask either of us.

We expect that each student will contribute and help others benefit from her/his particular background and expertise, including models and knowledge from specific disciplines. Nevertheless, some expectations cross all disciplines: thinking critically and systematically, writing clearly, and communicating ideas and arguments in a seminar format. We desire and anticipate a vigorous exploration of alternative points of view, but we require that this be carried out with unwavering respect for others.

Each student will be assigned a grade that represents the instructors' judgment as to her/his accomplishment and contribution in the course. If it is clear to the instructors that the contribution of an individual to a team assignment is significantly above or below that of other team members, the grade for the individual will be adjusted accordingly, up or down from the grade assigned the team. The weighting in determining the grade is

60% Major team project
20% Other assignments
20% Contribution to class discussion

Major Team Project

Students will be assigned to teams. Each team will carry out a major project to evaluate the potential of a specific environmental technology.

In keeping with the course philosophy articulated above, we believe that successfully conducting the project will require significant attention and effort to achieving synergy among the disciplines represented by participating students.

This team project will be challenging. Student teams will encounter the same challenges experienced by professionals addressing these problems: time pressures, incomplete or unavailable information, and overcoming disciplinary barriers. We have different backgrounds, different professional/technical language and methodologies, and sometimes different assumptions about how the world works. That being said, we believe that overcoming these challenges is exactly what is needed to address our most important environmental problems.

The project will involve a series of intermediate steps. Each will be graded so as to assure your focus on each. Our experience is that sustained effort on the project throughout the quarter is required to achieve the exceptional projects that both students and instructors desire. Every step is a foundation for what follows. For example the initial presentation on project (class #6, April 17) is brief compared to the final presentation, but is a critical milestone in terms of being on track regarding expectations, scope of work, etc. We have found that a team that fails to give adequate effort to this assignment may find itself playing catch up for the rest of the quarter.

Strategic Partners

The projects (i.e., development of project ideas and on-going technical support) involve collaboration with the US EPA's Environmental Technology Commercialization Center (ETC²), Battelle/ Pacific Northwest National Laboratory (PNNL), the National Renewable Energy Laboratory in Boulder, and businesses.

This internationally acclaimed environmental and natural resource expertise from Battelle and ETC² is available as the result of a strategic relationship that has been in place since 1992.

The EPA performs a wide spectrum of environmental science and engineering research. ETC², operated under contract by Battelle, identifies EPA technologies and technical expertise that have potential for commercial application, cooperates with industry to infuse these new innovations into products and processes that will benefit the global environment, and works with small environmental companies to assist in bringing these innovations to market.

From its founding in 1929, Battelle's mission has been to access technological expertise from throughout the world in order to help business, industry, and governments develop products and solutions that will improve society, the quality of life, and the environment. With a staff of over 7,500, Battelle now works in more than 30 countries to develop and commercialize new environmental technologies.