

Proposed Syllabus for ESM357/BA357

Working title: Business Solutions for Environmental Problems

Instructors: John Rueter, ESM and Darrell Brown SBA

Purpose of the course:

This course presents both environmental science and business perspectives on environmental issues, focusing on smaller scale problems that might be amenable to entrepreneurial solutions. Students will learn how to contextualize and analyze issues using tools that come from both disciplines and then how to meld these perspectives together in search of cost and scale effective approaches. The course focuses on environmental problems that could be addressed sustainably using local, small-scale, business models.

This course will be included in the Environmental Sustainability Minor. It is designed for any interested students, and will be particularly salient for majors from SBA or ESM.

Course formats:

4 credit hours

This course could be taught in several formats including f2f lecture or full-online. If the course is fully online, it will probably follow the ESM format, i.e. a DIY template on top of a “cognitive apprentice” learning model. The on-line format will also facilitate the collaboration of the instructors.

Major Learning Objectives:

Identify types of environmental problems and link these to knowledge and value conditions.

Describe common environmental problems using a stock and flow notation that identifies: positive and negative feedback, mass balance, sources and sinks. Link these structural motifs to possible steady states or un-balanced behaviors.

Use a Stommel diagram to delineate the time and space scales associated with the landscape features and processes underlying environmental issues.

Relate the seven major environmental management approaches to the degree of knowledge, control and value coherence that each is suited for.

Describe how to identify important stakeholders and to assess their level of commitment and/or engagement in environmental issues.

Describe a range of business models that range from for-profit to fully donor-supported.

Analyze how environmental entrepreneurs have used businesses to solve environmental problems. Describe problems from an environmental point of view and how the entrepreneurs' business plans addressed the problems.

Identify key institutional and regulatory factors that need to be considered in predicting the feasibility using entrepreneurial of small-scale approaches.

Be able to review a business plan to assess business-to-business relationships that will be needed and possible problems or opportunities presented by these relationships.

Major topics (each topic is essentially a week, the order might be changed):

1. Problem types (simple, CPR, information and wicked) and the importance of human values
2. Systems view and scale attributes of environmental problems
3. Identifying approaches that are consistent with our knowledge, ability to control and the degree of agreement over values
4. Stakeholder identification and engagement
5. A range of business models from for-profit to fully donor-supported
6. Examples of entrepreneurial solutions to environmental problems
7. Institutional factors including the regulatory environment
8. Importance of business relationships to create successful enterprises

Deliverables:

Each week will contain a short written assignment that will scaffold toward the major assignments for the course.

First major assignment (at about week 5): analyze an example of how entrepreneurial approaches were used to help solve an environmental problem using the analysis tools presented in class.

Second major assignment (due at about week 9): analyze an open-ended problem of your choosing and suggest how to describe this in an environmental science perspective that lends itself to entrepreneurial solutions. Propose an environmental solution that relies on entrepreneurial business model.

The final assignment is a short presentation to be shared on the course website to promote your solution. Your peers will evaluate these.

Rubrics for the three major assignments will be posted prior to the due date. All assignments will be submitted via D2L dropbox.

Grading

Short weekly writing assignment (10 x 5 points)	50
First major assignment	20
Second major assignment	20

Final written assignment	20
Presentation – webpage	10
Quality of peer review comments	10
Total points	130

Grading will be on a 70, 80, 90% scale.

Reading (selections from the following texts will be made available):

Bornstein, D. (2007). How to Change the World: Social Entrepreneurs and the Power of New Ideas. Oxford, Oxford University Press.

Boyd, B., Nina Henning, Emily Reyna, Daniel E. Wang, and Matthew D Welch (2009). Hybrid Organizations: New business models for environmental leadership. Sheffield, UK, Greenleaf Publishers.

Dees, J. G., Jed Emerson, and Peter Economy (2001). Enterprising Nonprofits: A toolkit for social entrepreneurs. New York City, NY, John Wiley & Sons.

Elkington, J., and Pamela Hartigan (2008). The Power of Unreasonable People: How Social Entrepreneurs create markets that change the world. Cambridge, MA, Harvard University Press.

Maathai, W. (2004). The Green Belt Movement: Sharing the approach and the experience. New York City, NY, Lantern Books.

Meadows, Donella. (2008). Thinking in Systems. Chelsea Green Publishing.

Nicholls, A., Ed. (2006). Social Entrepreneurship: New Models of Sustainable Social Change. Oxford, Oxford University Press.

Novogratz, J. (2009). The Blue Sweater: Bridging the gap between rich and poor in an interconnected world. NYC, NY, Rodale.

Polak, P. (2008). Out of Poverty: What works when traditional approaches fail. San Francisco, Berrett-Koehler.

Polak, P. and Mal Warwick (2013) The Business Solution to Poverty: Designing products and services for three billion new customers. San Francisco. Berrett-Koehler.

Schumacher, E. F. (1973). Small is beautiful. Economics as if people mattered. Port Roberts, WA, Hartley and Marks Publishers.

Yunus, M. (2007). Creating a World Without Poverty: Social business and the future of capitalism. New York, Public Affairs.