



Chesapeake Project: Integrating Sustainability Across the Curriculum
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MIEH 300 Introduction to Environmental Health: A Public Health Perspective
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MIEH 300 is a core course for the new undergraduate Public Health Science Program at UMD College Park, which is growing rapidly. Environmental health is the branch of public health that deals with the human health effects of exposures to chemical, physical, and biological agents in the community, workplace, and home. This course provides students a grounding in the central scientific and policy concepts, principles, and applications for recognizing, assessing, mitigating and preventing the impacts of chemical, physical, and biological agents on human health. This course was originally designed to demonstrate these scientific principles through a survey of topics (e.g. air pollution, solid waste). As a result of participating in the Chesapeake Project, I plan to help students examine the interrelationships across multiple environmental health issues by exposing common conflicts, vested interests, contested science and possible solutions by integrating sustainability concepts throughout my course. For example I have chosen the following “big ideas” to weave throughout the course: true cost accounting, social justice/environmental justice, “triple bottom line”, and the Precautionary Principle. Students will be expected to apply these concepts in our discussions of our course reading *Toms River*, a story about a Superfund site in New Jersey, and in their final persuasive essay and oral presentation assignment. These activities will facilitate students meeting a revised learning objective:

Apply basic scientific principles to evaluate environmental health problems and identify solutions that consider environmental sustainability.

Additionally I have incorporated the following course elements:

1. Consumerism: Students will begin by viewing “the Story of Stuff” and we will examine how points along the consumer product lifecycle interact with the Environmental Health Paradigm, the scientific framework that provides a basis for understanding how chemicals and pollution in the environment harm human health.
2. Solutions: I will assign two in-class writing assignments, one at the beginning and one at the end of the course in which students will respond to a prompt about an environmental sustainability issue such as energy conservation or food waste. The purpose of these assignments is to evaluate how well students identify stakeholders and consider barriers to prioritize sustainable behavior before proposing a solution.
3. Field experience: It is important for students to get outside the classroom to experience environmental health challenges and solutions first-hand. During this course students will participate in a field trip to Terp Farm, a small demonstration sustainable farm at the Central Maryland Research and Education Center in Upper Marlboro, Maryland. Alternatively, we will arrange a field trip to a local wastewater treatment facility to better understand the current challenge of treating industrial waste, a topic described in our course reading, *Toms River*.