

**Marjorie Reaka's plans to incorporate sustainability into classroom curriculum during academic year 2010-11: Marine Biology (BSCI 338 B)**

**May 29, 2010**

I have modified the primary class that I teach, Marine Biology, to specifically include "sustainability" in several respects. These are bolded in red font on the attached syllabus.

The Objectives of the course have been modified to include the sentence "There will be a new emphasis this year on sustainability in different marine environments and on sustainability of biodiversity in the seas overall when under human impact."

Following treatment of the evolutionary development of biodiversity in all of the major groups of marine organisms, and prior to our treatment of the community dynamics of all of the major types of marine communities (including when impacted by humans), we will step back and have a class-wide conceptual discussion about what "sustainability" means in its broadest contexts as well as in its ecological context. I plan to invite several guest speakers for a forum discussion on interdisciplinary aspects of "sustainability" and hope to show how other perspectives can broaden our understanding of ecological sustainability. The speakers may come from the Chesapeake Bay Institute, from the Campus Chesapeake Project, and/or speakers from other departments that I met during the discussions of the Chesapeake Project on May 24 and 25.

We will include a discussion of "sustainability" in each of the following class periods devoted to a particular type of marine community (e.g., "community dynamics and *sustainability* of estuaries, salt marshes and mangroves").

We conclude the course with study of human impacts on the seas, which leads to a new finale for the course, which now will become "*Sustainability* of the seas." This lecture will attempt to synthesize all of the material that they have been presented in the course up to that point. It proposes to leave the students better educated about the biological and evolutionary history of marine biodiversity on the planet, how this biota has responded to environmental change and human impacts in the past and how it is likely to respond to escalating human impacts in the future, and how our society can best move forward to protect and sustain biodiversity and a living biosphere while at the same time meeting the social, cultural and biological needs of an expanding human population.