

1056-BC-1314      **Thomas J Pfaff\*** (tpfaff@ithaca.edu), Mathematics Department, Ithaca College, Ithaca, NY 14850, and **Ali S Erkan, Jason G Hamilton** and **Michael Rogers**. *How Calculus can Participate in Multidisciplinary Sustainability Modules*. Preliminary report.

College education has always had the responsibility to produce individuals who are well on their way to become experts in their field of interest. However, as society faces ever more complex problems that require systems thinking, we also see the growing importance of producing professionals who have the skills to work with people from a diverse set of disciplines. In broad terms, this new educational challenge can be addressed through either an interdisciplinary approach or a multidisciplinary approach. With an interdisciplinary approach participants must become fluent in the participating disciplines so that ideas and concepts from different disciplines are integrated to generate new ways of thinking. Through a multidisciplinary approach, the distinct perspectives and concepts of each discipline can be used to tackle particular portions of a complex problem; fluency in all the participating disciplines, however, is no longer emphasized. A multidisciplinary approach works well with the existing systems we see in today's institutes of higher education. In this talk, we will give an example of a multidisciplinary module centered around the theme of climate change, with an emphasis on the role Calculus I in the module. (Received September 21, 2009)