

Meeting: 1003, Atlanta, Georgia, MAA CP M1, MAA Session on Environmental Mathematics and the Interdisciplinary

1003-M1-688 **Rene A. Salinas*** (salinasra@appstate.edu), Mathematical Sciences, Appalachian State University, Boone, NC 28608. *Environmental Mathematics Topics for Liberal Arts Majors.*

The Mathematical Sciences Department at Appalachian State University offers a mathematics course for liberal arts majors. The course material is somewhat flexible in that sections on financial math and statistics must be taught while the rest can be from outside material. The course also includes a two-hour lab each week in which the students perform group projects. I chose to end the course with a section on environmental mathematics. The material covered was designed to match students' curiosity about global warming, pollution, and depletion of natural resources to mathematics. Some of the material covered included dimensional analysis, exponential growth and decay, and difference equations. I introduced each topic by having the students read an article dealing with an environmental issue and used the new math material to help them understand the conclusions of the article. Lab projects involved using the web to find scientific data and Excel to produce graphs and other output related to a specific question. The overall response of the students was quite positive. For this talk I will give a few examples of the articles and corresponding math topics as well as student responses to them. I will also discuss what I would have added or removed from the section. (Received September 27, 2004)