1003-M1-626 **Linda L Eroh*** (`eroh@uwosh.edu`), Mathematics Department, University of Wisconsin Oshkosh, 800 Algoma Blvd., Oshkosh, WI 54901, and **Maureen Muldoon** (`muldoon@uwosh.edu`), Geology Department, University of Wisconsin Oshkosh, 800 Algoma Blvd., Oshkosh, WI 54901.
Problem-based Inquiry Seminar in Environmental Mathematics. Preliminary report.

We will discuss a general-education mathematics course developed and taught jointly by a geologist and a mathematician at the University of Wisconsin Oshkosh. This course intends to help non-math and science majors develop basic quantitative and problem-solving skills. By placing these skills in a geologic context, we hoped to make the material more concrete and appealing to these students. Topics include map-making, rivers and flooding, sediment size analysis, ground water flow, density and isostatic rebound, steady-state box models and climate change. In each module, students were given geology and math background to read. If necessary, the background was reviewed in class. Working in groups, the students gathered data in the field, in the laboratory, or through Internet sites of geology data. With guidance, they analyzed their data and used it to solve a challenging mathematical-geology problem. Students wrote individual reports on each module. We administered pre- and post-tests to determine if they gained the desired skills. In the talk, we will give an overview of the course, the motivation for its development and our major goals. We will look at one or more of the module topics in detail, including student response to it, and the pre- and post-test results. (Received September 24, 2004)