

Paper No. 66-24

Presentation Time: 8:00 AM-12:00 PM

INCREASING STUDENT INVOLVEMENT IN LARGE LECTURE CLASSES: MAKING GEOSCIENCE INTERESTING AND RELEVANT

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Large (200+) introductory classes offer a unique opportunity to present geoscience as interesting and relevant to non-scientists' interests and career goals. Often, such classes are students' only exposure to geoscience at the college level. Eliciting feelings of interest and relevancy in students can be difficult within the lecture format commonly used to teach large classes.

At the University of Vermont, we apply teaching techniques normally used in smaller, upper-level classes to a large introductory class. Earth Hazards (GEOL 007) meets biweekly and covers a wide range of topics including volcanoes, earthquakes, hurricanes, mudslides, avalanches, tsunamis, floods, bolide impacts, climate change, and nuclear issues. We frequently use hands-on demonstrations with a video camera displaying our actions at the front of the lecture hall. Every class period includes one or more sessions in which students work in small groups, answering questions or writing opinions related to the day's subject matter. During this time the professor and teaching assistants (T.A.s) circulate the hall, resulting in personal interaction rarely experienced in classes of this size. Weekly quizzes give students frequent feedback on their understanding of the material. We hold evening showings of three to four major motion pictures related to the subject material and discuss the strengths and faults of the science presented in these movies. As part of the nuclear issues topic, we assign a student essay based on a photographic collection depicting the history of nuclear power and weapons. These and other practices have made Earth Hazards popular and effective in reaching non-science students.

While these methods increase student interest, many still do not grasp the relevancy of geoscience to their daily lives or career interests. In order to address this shortcoming, we have added mandatory discussion sections. These sections consist of weekly, one-hour sessions taught by a T.A. in which small groups of students will explore the relationships between geoscience and other subjects. Topics include reading and

discussing business articles on the economics of earthquake insurance, comparing artistic renderings of tsunamis from different time periods and cultures, and listening to New England folk songs about Nor'Easters.

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Session No. 66--Booth# 120

Sigma Gamma Epsilon Student Research (Posters)

Colorado Convention Center: Exhibit Hall
8:00 AM–12:00 PM, Monday, October 28, 2002