

## **Syllabi by Discipline :: Geology**

### **Course Title: "Interpreting the History, Geology, and Ecology of Monterey Bay"**

**Instructor: Dr. Steve Moore**

**School: California State University, Monterey Bay**

**Categories:**

**Geology, Environmental Studies**

### **Syllabus:**

#### **Course Description:**

This is a 2-unit Service Learning option associated with ESSP 195: "Special Topics: The History, Geology, and Ecology of Monterey Bay". Students will learn about Monterey Bay in the special topics course and will share their knowledge with K-12 grade children at local schools by participating in the Virtual Canyon Project. This project is an ongoing effort to develop an interactive, educational, web-site to help school children learn about Monterey Bay, its deep underwater canyon, and the research process through which scientists learn about the bay and its inhabitants. Students in this service learning class will team up with students in another service learning class ("Tech Tutors") and go to the schools, where they will work with children to create fun and informative web-pages that will become part of the Virtual Canyon web site. In addition to the weekly class meetings, student will be required to do approximately 50 hours of service in the schools and will be required to participate in planning, contribute to group discussions, and write essays reflecting on their service learning experiences. This course is open to all CSUMB students, but is designed for non-science majors, especially those interested in teaching science at the K- 12 level.

**Course Prerequisites:** Concurrent enrollment in ESSP 195: "Special Topics: History, Geology and Ecology of Monterey Bay."

**Instructor:** Dr. Steve Moore, Assistant Professor of Earth Systems Science and Policy (ESSP)

**Instructor Office Hours:** Tu 12-2 and W 3-5 Bldg 13

#### **Course Time and Place:**

The regular meeting time for this class will be Tuesday afternoons, 4:00-4:50 p.m., in Building 18 (Media Learning Complex), Room 118 (Distance Learning Room).

There will also be four mandatory Service Learning Breakfast Seminars from 8:30-10:30 a.m. on Fridays: February 14, March 7, April 11, and May 9.

In addition, each student will be required to spend approximately 50 hours during the semester at one or more local schools assisting them with their part of the Virtual Canyon Project. The times and locations for these meetings will be arranged early in the semester based on student and school schedules.

**Learning Goals:** This course will enable each dedicated student to:

Explain the scientific method fully and accurately.

Help children understand and explain how scientists study and learn about the natural world.

Explain one or more aspects of the history, geology, and/or ecology of Monterey Bay in sufficient detail to fill an informative web page.

Teach local school children about some of the natural and/or historic features of Monterey Bay.

Discuss the social and cultural implications and importance of inspiring children to explore nature

through science.

Explain the benefits of a collaborative project where different individuals contribute different skills and knowledge to the benefit of everyone in the group.

### **Service Opportunities:**

Students in this course will assist children and teachers in local K- 12 schools as they design and create their unique contributions to the Virtual Canyon Project. Specifically, the service learning students will serve as "content experts", providing inspiration, guidance, and "quality control" for the science information content in the web pages being developed by the school children. The school children will also be assisted by CSUMB students from the "Tech Tutors" Service Learning course, who will help with the technical aspects of setting up the web pages. Students will meet with their assigned school teachers and children at one (or more) of the local schools for about 4 hours each week of the semester, beginning in the third week.

### **Service Objectives:**

Teaching is one of the most effective ways to learn. Students in this course will have their learning in the parent course (History, Geology, and Ecology of Monterey Bay) reinforced as they learn to explain it clearly to schoolchildren. Students will become particularly versed in whatever specialized topic(s) their school kids are working on, since they will need to learn and teach the answers to all of the children's questions. Through direct experience with teaching children, students will learn how to work with kids and will learn what some of the challenges of K- 12 teaching are, and how to overcome them.

Students will experience, first hand, the joys and frustrations of teaching children about the wonders of the world they live in. Students will reflect on the larger meaning and impact of this type of collaborative, service-oriented education, and of science education in general. Is science education at this young age important? Is this an effective method for doing science education? What is the impact on the children, teachers, schools, community, and service-learning student? Who benefits and why? Is anyone negatively impacted by this educational approach?

### **Grading:**

Your grade in this course will be based on the following:  
(# of times; Points each time; Point subtotal)

Dr. Moore's evaluation of your weekly reflection essays (10;4;40)

Dr. Moore's evaluation of your Summary reflection Piece (1;10;10)

School Teacher's Evaluation of your contribution to the children's Virtual Canyon educational experience (2;10;20)

School Children's evaluation of how friendly and helpful you were to them (2;5;10)

Peer evaluation of your contributions to the class (2;5;10)

Self evaluation of your contributions to the class (2;5;10)

TOTAL 100

Grading will be Credit / No Credit. To pass this course you must do ALL of the following:

Score a total of at least 60 points.

Score at least 5 points on your summary reflection essay.

Score at least 2 points on each of at least 9 regular reflection essays.

Attendance is required both in our classroom and at the school Service site. Although attendance is not listed explicitly as a criterion for grading, I will not accept a reflection essay about an experience or group discussion that you did not participate in.

All written assignments are due in the "IN" box beside my office door by 5 p.m. Friday of the week they are assigned. **ABSOLUTELY NO LATE WORK WILL BE ACCEPTED UNLESS YOU HAVE**

**RECEIVED PRIOR PERMISSION FROM ME TO TURN THE WORK IN AT A LATER DATE.**

© Copyright Dr. Steve Moore. All rights reserved.  
Published with permission by Campus Compact



**© National Campus Compact, 2005.**

**Printed from:**  
**<http://www.compact.org/syllabi/syllabus.php?viewsyllabus=444>**