Ways to Engage Students: <u>Service</u> <u>Learning</u> in Large Introductory Classes

Session Description (10:00 - 10:50am):

Cultivating citizen scientists is one of our many jobs as professors. Place-based or service learning courses link student learning to a familiar context and local social issues. These types of courses require substantial planning, organization, and time, but the result may be increased student learning gains and an understanding of relevant issues underpinning to a local area. This session will discuss some strategies for developing and sustaining place-based or service learning courses.

Matthew Kirby California State University, Fullerton Department of Geological Sciences

disclaimer: below are Dr. Kirby's opinions based on 10 years experience...obviously, there are many other views on how to set up a lab...please consider them all, as appropriate

Ways to Engage Students: Service Learning in Large Introductory Classes

- Some Background
- What is Service Learning?
- Example of University Mission and Goals
- Large Introductory Course Example
- Small Introductory Course Example



Some Background

- I was asked to teach a service learning course in 2005
- I had 0% knowledge of what a SL course was!
- I was freaked out once I learned what it was!
- I forged ahead anyways...call it naivety.
- It proved to be a great experience and one that the students fondly remember (based on SOQs)
- I have taught the course 3 times total...once to 15 students and twice to 60-90 students.
- Today, I focus on the large class because it is nuts to think that one could use SL in a large course...BUT, you can!

What is Service Learning?

- "Service-learning is a method under which students learn and develop through thoughtfully-organized service that:
- 1. is conducted in and meets the needs of a community and is coordinated with an institution of higher education and with the community;
- 2. helps foster civic responsibility;
- 3. is integrated into and enhances the academic curriculum of the students enrolled; and,
- 4. includes structured time for students to reflect on the service experience"

Source: AAHE - Service-Learning in the Disciplines

Example of University Mission and Goals CSUF Mission and Goals:

"Through experiences in and out of the classroom, students develop the habit of intellectual inquiry, prepare for challenging professions, strengthen relationships to their communities, and contribute productively to society."

UPS 411.600 "Policy on Service-Learning"

Earth's Atmosphere and Oceans (GEOL 140)

- 60 to 90 students
- Course Description: The composition, structure, and circulation of the Earth's atmosphere and oceans with a general focus on their interactions. Interdisciplinary topics that highlight atmosphere-ocean interactions will include global warming, ice ages, El Nino, Southern California storms activity, and Santa Ana winds (3 hours lecture, field trips).
- some issues!
 - CSUF is a large (37,000 students) university
 - CSUF is largely a commuter based clientele
 - Many CSUF students have jobs, families, other stuff...

SERVICE-LEARNING MODELS FOR GEOL 140:

- 1. <u>Problem-based Service-Learning</u> students serve as "advisors" to the community;
- 2. <u>Undergraduate Community-based Action Research</u> students develop a sense of civic responsibility.

ASSESSING SERVICE LEARNING:

- a) reflection of activity (10pts. each; see Reflection details below); and,
- b) confirmation of participation using the confirmation letter (20pts. each; see example of confirmation letter below).

note: Local relevance and Media category = 30 pts. each for reflection since no confirmation letter is required

SERVICE-LEARNING PROJECT:

An important part of the earth sciences is an understanding of how Earth systems interact. This interaction is especially relevant for today's society where we consume natural resources at unnatural rates and produce unprecedented levels of waste and pollution. How can we, as a society, continue to develop without concern for our planet? To explore the interaction of Earth systems and the impact humans have on these systems, I have developed a service-learning component that fulfills three objectives:

- 1. relevant and meaningful service for the community;
- 2. purposeful civic learning; and,
- 3. enhanced academic learning.

A well-structured service-learning course will make the service-learning component an integrated part of the course. Your grade for the service-learning component will consist of approximately one-fourth or one-fifth of the course grade. All three parts of this service-learning component will focus on the County of Orange Harbors, Beaches, & Parks (http://www.ocparks.com/). The purpose of this service learning component is to make you aware of Orange County's wonderful open spaces from both a civic responsibility point of view AND an Earth systems point of view.

SERVICE-LEARNING GOALS AND OBJECTIVES:

1. **Goal:** To develop an appreciation the Orange County Harbors, Beaches, and Parks system in Southern California from both a civic responsibility and an Earth systems perspective.

2. Required Service Learning Requirements:

You must participate in 5 activities with at least two in each a) and b) below:

- a) <u>Volunteer Category</u>: You must volunteer for a park activity during the semester with a required reflection (see example later in syllabus);
- **b)** Earth Systems Category: You must attend an educational program at one of the Orange County Parks and/or Beaches with a required reflection (see example later in syllabus);
- c) Local Relevance Category: You must visit the Cal-State Fullerton Arboretum with a required reflection (see example later in syllabus); and,
- d) Media Depiction Category: You must watch one movie related to topics in this course and reflect on its relevance, veracity, and how the subject is portrayed (see example later in syllabus).

BUT, how do I know what my volunteer opportunities are? And, how do I know when and where the educational programs are? Below is a list of the sites you can choose from and a copy of the webpages you will need to check from the first day of class to make sure you schedule your service learning activities EARLY!!! Freshman Programs will explain HOW you sign up for your service learning during an in-class presentation.

List of Potential Service Learning Sites:

Regional Parks Arroyo Trabuco Carbon Canyon Park Clark Park Craig Park Featherly Park Irvine Park Laguna Niguel Park Mason Park Mile Square Park O'Neill Park Peters Canyon Park Santiago Oaks Park Wieder Park Yorba Park

Wilderness Parks
Aliso And Wood Park
Caspers Park
Laguna Coast
Riley Park
Talbert Preserve
Whiting Ranch



Service-Learning Reflection: What it is? And, What you need to do?

GEOL 140 Earth's Atmosphere and Oceans

Prof. Matthew Kirby

Due: after attending each SLC event

Grade: 10 pts.

What is a SLC Reflection?

A SLC Reflection, as used in this course, is defined as a "careful thought, especially the process of reconsidering previous actions, events, or decisions; an idea or thought, especially one produced by careful consideration of something" (Encarta® World English Dictionary © 1999 Microsoft Corporation. All rights reserved.). The idea is to get YOU, the SLC volunteer, thinking about:

- 1. What you did?
- 2. How your activities better the community?
- 3. The experience in general?
- 4. Something that you learned?
- 5. Something you especially liked and/or disliked?
- 6. How what you did relates to the class topics and/or objectives?

What you must hand-in?

- 1. Name
- 2. Date of Activity
- 3. Location of Activity
- 4. Title of Activity
- 5. AND, Be thoughtful...reflections can consist of written or drawn or photos or whatever parts...BUT, there must at least one WRITTEN paragraph (50 words minimum provide word count at end of written section). The structure of Reflection is up to you paragraph style?, bullets?, photo-journal with captions?, diary style?

PS. the "paragraph" can be longer than 50 words if you have a lot to say!

PPS. Have fun! There are not too many times in your life where someone will genuinely ask or care what you have to think! I do!

CSUF Geology 140 Service Learning Confirmation Letter

Date:	
Activity:	
Location:	
To Whom It May Concern:	
Please sign this letter confirming thatlisted above.	(student name) participated in the activity
Activity Leader Name (printed):	
Activity Leader Name (signed):	
Phone or E-mail (if desired):	
Thank you for your time!	
If you have any concerns or comments, please	call me at the number listed below.

Matthew Kirby Associate Professor Department of Geological Sciences California State University, Fullerton

Phone: 657 278-2158

E-mail: mkirby@fullerton.edu

Small Introductory Course Example

- My original SLC consisted of only 15 students...
- As a result, I made a data collection and analysis based SL project focused on Big Bear Reservoir and the Big Bear Municipal Water District.
- The students presented their results to the Big Bear Municipal Water District board
- See me if you want to chat about a small class, data/ science based SL project! Truthfully, the small class SLC was much more fun for me AND rewarding for the students.