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What strategies have you or your program used to meet one or two of the challenging aspects of teaching at a two-year college?

The most challenging aspect of teaching at my institution is that the students span the entire range of preparedness. Some can perform at the level of geoscience majors, and others do not have basic English language skills, and cannot perform simple mathematical calculations. This makes it particularly challenging to teach the introductory laboratory courses which require students to read carefully, follow instructions, and perform basic functions such as graph reading and simple mathematical calculations.

One strategy I use for the Physical Geology Laboratory class is to allow students to select from a variety of learning tools and formats to achieve their grade. Students earn a grade by completing in-class laboratory exercises, field trips, interactive online laboratory assignments, and a final project. Students must complete the mandatory in-class and online laboratory sessions. The in-class sessions are devoted to the geology basics such as map reading and rocks and minerals identification. The remainder of the laboratory points can be earned by any combination of field trips listed in the table. The field trip points are directly correlated to the credit hours assigned to the course. For example, a field trip worth 3 points correlates to 3 hours. The grading scale is based on 45 points = A.

This strategy has been successful in two ways:

1. Students who are struggling with the laboratory exercises due to weak English or mathematical skills are able to succeed since the entire course grade does not rest solely on the in class laboratory exercises.

2. Students get back to "the field". At our public institution, we are told that we cannot require students to take field trips and have to offer alternate assignments for students who do not have the means (money or transportation) to participate. The students are able to take the trips that they can afford and some trips (such as those to museums), are self-guided and can be done on weekends and with family members.

An example of the field trip information table typically used in the Physical Geology Laboratory class is provided below.

FIELD TRIP INFORMATION

The mandatory in-class and online laboratory sessions are indicated in boldface type in the field trip table listing. The remainder of the laboratory points can be earned by any combination of field trips listed in the table. **Note: There are no substitutions for the field trips listed in the table. All field trip reports are to be turned in by ___.** You may use the ETUDES course web site to submit your papers electronically. Students should keep a hard copy of each report (including the photograph). **NO LATE FIELD TRIP REPORTS WILL BE ACCEPTED AND NO PARTIAL CREDIT WILL BE GIVEN FOR LATE REPORTS OR REPORTS WITHOUT PROPER PHOTO DOCUMENTATION.**

Laboratory Activity/ Field Trip	Description	Date	Fee	Total Points
CA Oil Museum	Self-guided	Self-guided	$1.00	3
California Science Center	Instructor-guided	11/18	Free w/Imax	2
Finding the Earthquake Epicenter	***Online***	***10/10***		***3***
Gem and Mineral Hall	Instructor-guided	11/18	$5.50	2
IMAX Theatre	Instructor-guided	11/18	$5.00	2
LaBrea Tar Pits	Self-guided	Self-guided	$7	3
Map and Aerial Photograph Interpretation	**In-class**	**9/12**		**3**
Map and Aerial Photograph Interpretation	**In-class**	**9/19**		**3**
MARS online lab	***Online***	***12/12***		**3**
Minerals Identification	**In-class**	**10/24**		**3**
Minerals Identification	**In-class**	**10/31**		**3**
Mitsubishi Cement Plant	Instructor-guided	12/2	None	6
Rocks Identification	**In-class**	**11/14**		**3**
Rocks Identification	**In-class**	**11/21**		**3**
The Time Machine	***Online***	***9/26***		**3**
Tillman Water Reclamation Plant	Instructor-guided	12/5 (class time)	None	2

GEOLOGY 6 STUDENT LAB/FIELD TRIP PLANNER

Lab/Field Trip	Date of Lab/Trip	Fee	Credit (Points)	Required Work	Date Work Completed	Date Submitted