PSME/EDUC 41 Class Practices in Middle School Mathematics, Spring, 2011

Instructor: Dr. Karl Schaffer
Class meeting days: Wed.
Class time 6:30-7:20 PM plus 3 hrs/wk laboratory time in
    assigned middle school
Classroom: S-42
email: schafferkarl@fhda.edu

Office phone: 408-864-8214
Office**:** E-23A (see map on other sheet)

Office Hrs: **Mon. 7:30-8:20 PM, Wed. 3-4 PM**
or by appointment

class web address: http://nebula2.deanza.edu/~karl/

Course content: Introduction to the teaching and learning of science and mathematics in middle school classrooms for prospective science and mathematics teachers. Pairs of students are placed in local middle school classrooms to observe, participate and assist a Mentor Teacher in science and mathematics instruction. Students also participate in a weekly seminar on campus and discuss the best means to teach appropriate science and mathematics concepts at the middle school level.

Prerequisite: Qualifying score on Mathematics Placement Test within the last calendar year; or Mathematics 114 with a grade of C or better, and a college level science course with a grade of C or better. Current TB test, finger printing, and background check. Advisory: English Writing 100 and Reading 100 (or Language Arts 100), or English as a Second Language 172 and 173. (Also listed as Education 41. Student may enroll in either department, but not both, for credit.)

Text: Assigned readings, TBA.

Grades: Pass/No Pass based on:

Assignments
A. Fieldwork and Reflections: Students will work in a middle school classroom a minimum of 3 hours per week during the quarter. For every field visit, students will log their hours and reflections.
B. Weekly Assignments: Assignments will be given on a weekly basis including readings, homework, and topics for discussion with Mentor Teachers.
C. Inquiry-based Lesson Projects: Working in pairs, students will develop two inquiry-based lesson plans to be critiqued by their instructors and mentor teacher and presented to their peers. At the discretion of the Mentor Teacher, students will present one of these lessons to a middle school class and assess the effectiveness by measuring student learning.

Students will keep a Portfolio and Problem Solving Journal.

Attendance. Due to the importance of class work and participation, you may miss 2 class sessions during the quarter; You must participate fully in discussions and class activities to receive credit.

Some background on the instructor: Ph.D. and MA in Mathematics from UC Santa Cruz, undergraduate work at University of Chicago and University of Alabama. Grew up in New England and Alabama. Do research in the mathematics of "networks," and am very active in math education for K-12. I am interested in and will use collaborative learning and interdisciplinary learning techniques in the class. I am also a modern dance performer and choreographer, and company I co-direct does shows about math and dance, among other things. For more background on this see www.mathdance.org and/or www.movespeakspin.org.