

EDUC 50C-01 – Fall 2012
CAL TEACH SEMINAR
SCIENCE
Tuesday 4:00-5:45

Course Instructor: Pat Kent
Office: Room 359 3rd floor Thimann Labs
Telephone: 831-459-1929
E-Mail: pkent@ucsc.edu
Office Hours; Thursday 11:00 AM-2:00 PM (or after class)

COURSE DESCRIPTION:

The overarching objectives of this course are:

- Deepen internship experience by exploring science content standards, multiple strategies for teaching and learning, and classroom management
- Improve participants' ability to understand and communicate scientific concepts and science thinking

Students analyze and evaluate classroom observations and science education issues related to their placements in secondary science classrooms. Coursework includes readings, seminar participation, weekly writing assignments and classroom projects. This quarter focuses on structure of schools and school culture, how teachers prepare and implement lessons and how students learn science. The seminar activities may include discussion, video (and/or other media) demonstration, hands-on experimentation and lecture.

SEMINAR OUTCOMES

- Cal Teach intern will move from student identity to teacher identity
- Recognize parts of a lesson plan
- Build lesson presentation skills
- Study and observe select learning theories/ understand student learning
- Analyze and observe host teacher instruction
- Recognize the pros and cons of various methods of science instruction
- Know and practice classroom procedures
- Understand classroom management

SEMINAR TASKS

- Classroom observations with both written and oral reflections
- Soapbox science presentation
- Poster lesson project
- Teacher interview
- Model lesson based on host teacher's lesson plan
- Next Steps report

COURSE REQUIREMENTS:

- **Attendance:** Weekly class meetings are mandatory. **The instructor reserves the right to lower a student's grade for each unexcused absence from class. Excused absences may also result in a lower grade if there is more than one.**
- **Participation (35%):** Participate in weekly discussions and be prepared to lead the class in discussions that focus on classroom observations and connections to required readings. Actively provide point of view to peers during class discussions and feedback via rubric for peer presentations. Contribute to the success of class activities.
- **Poster Project (15%):** Implement and complete the Lesson Design Poster project
- **Soapbox Science presentation (5%):** Plan for and complete the Soapbox Science presentation
- **(35%) Weekly Written Papers:** All weekly and onetime written assignments must be submitted in either MS Word doc, Adobe PDF, or notepad/text edit format. Please no hand-written assignments. Writing conventions will be discussed further in seminar class, but minimum college level writing is essential. Please see the writing rubric grade sheet at the back of this packet. **Late papers will have a 50% reduced grade. All papers that are not passed in on the required due date may be submitted no later than December 7th.**
- **(5%) Teacher Interview:** Conduct a teacher interview. Suggested questions will be distributed. Write a report summarizing the findings.
- **(5%) Intern Evaluation:** The host teacher will submit an evaluation of the intern based on performance of professional standards and classroom activities.
- **Final Reflection: Next Steps.** At the end of the quarter, after spending weeks observing and assisting in a secondary science class, write about what your next steps might be regardless of if you are to continue with Cal Teach. This may include ways of participating in the classroom you already did and wish to do more of, as well as ways of participating that you did not get to do but can see a need or desire to do it if given the chance. This should be a 1-2 page reflection including specific techniques and/or activities and the rationale for considering them as appropriate next steps. As potential next steps you may also include what more you want to learn about concerning teaching methods & philosophy.
If you are certain you are not going to continue with Cal Teach, summarize what you have learned. Reflect on what kind of teaching, if any, you might do in the future; also, what you learned and gained by being in the Cal Teach program this quarter and comment on why you are choosing your direction.

REQUIRED READINGS

Week 1

Marzano, Robert J. (2003) "The Critical Role of Classroom Management". Chapter 1 **Classroom Management that Works: Research-based Strategies for Every Teacher**. Alexandria, VA: ASCD

Week 2

Pritchard, Susan (2005) "More Than Twelve Ways to Enjoy It All!" *California Science Teachers Association*, from www.cascience.org/csta/pdf/12%20Ways.pdf

Williamson, Tim (2007) "Classroom Management and Student Behavior" *California Science Teachers Association*, from <http://www.cascience.org/csta/pdf/Student%20Behavior.pdf>

Norton, John (September 25th, 2007) "Teaching Secrets: Hallway Hints II". *Teacher Magazine*, from http://www.teachermagazine.org/tm/articles/2007/09/25/05tln_norton_web.h19.html

Cody, Anthony (September 18, 2007) "Teaching Secrets: Students Behave When Teachers Engage" *Teacher Magazine*, from http://www.teachermagazine.org/tm/articles/2007/08/21/34tln_anthonycody_web.h18.html?print=1

Week 3

Wiggins, Grant & McTighe, Jay (2005) "Planning for Learning". Chapter 3, **Understanding by Design**. Alexandria, VA: ASCD

Week 4

Ruth, Geoff (February 2005) "No Books, No Problem: Teaching Without a Text" *Edutopia.org The George Lucas Education Foundation*, from <http://www.edutopia.org/print/1214>

"Textbook Analysis" p.51-52 in *Learning to Teach*

Week 5

"Revised Bloom's With Question Stems"

Costa's Levels of Inquiry

Chappuis, Jan (2009) "Seven Strategies of Assessment for Learning"

Week 7

Vondracek, Mark (March 2009) "Teaching with Multiple Methods in Mind" *The Science Teacher*

Week 8

"The Art of Questioning"