

EDUC 50-C: Cal Teach Science Seminar

EDUC 50C-01 – Fall 2009

CAL TEACH SEMINAR

(SCIENCE)

Monday 5:00-6:45

Course Instructor: Pat Kent
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Office Hours: Tuesday 11:00 AM-2:00 PM (or after class)

PURPOSE OF COURSE:

The overarching objectives of this course are:

- Provide an introduction to careers in teaching science at the 6-12 level
- Improve participants ability to understand and communicate scientific concepts and science thinking

Students analyze and evaluate classroom observations and education issues related to their placements in secondary science classrooms. Coursework includes readings, seminar participation and written weekly classroom observations. 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 lesson plan
- Build lesson presentation skills
- Study and observe select learning theories/ understand student learning
- Analyze and observe host teacher instruction
- Recognize, in contrast to direct and guided instruction, inquiry-based science instruction
- Know and practice classroom procedures
- Understand classroom management

SEMINAR TASKS

- Classroom observations and reflections
- Classroom Activities Portal log
- Soapbox science presentations
- Poster Lesson Project
- Teacher Interview
- Model lesson based on host teacher's lesson plan
- Next Steps Report

COURSE REQUIREMENTS:

- **(40%) Attendance (25%)/Participation (15%)**: Attend weekly class meetings, complete assigned readings, and participate in discussions, Poster Project and the Soapbox Science Presentation. Be prepared to lead the class in discussions that focus on classroom observations and connections to required readings. **The instructor reserves the right to lower a student's grade by 5 % for each unexcused absence from class.**

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- **(20%) Cal Teach Portal Reflections:** Conduct classroom observations in local middle or high school placements. Write reflections on classroom observations in the Cal Teach Portal. The reflection writing should focus on classroom observations, such as: the teaching strategies, classroom management, classroom organization, science content and classroom procedures of the host teacher; also, the science learning of the students. Written reflections will be due to the Portal log every week starting Week 2. **At the end of the 5th week (February 6th) all logs must be up to date and match the number of hours at placement. If this is the case, the full 12.5 point points will have been earned (out of a total of 25 points). If this is not the case, then only 9 points will have been earned. The same happens at the 8th week: the full credit will be earned, or not. March 16th is the last day that information can be uploaded to Portal.**
- **(30%) Classroom Observations and Reflections:** 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 25% reduced grade. All papers that were not passed in on the required due date may be submitted no later than March 16th.**
- **(10%) Teacher Interview:** Conduct a teacher interview. Suggested questions will be distributed. Write a report summarizing the findings.
- **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 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

Adams, Natalie G.(2006) "Significant Past School Experiences", in *Learning to Teach*. Mahwah, New Jersey, LEA

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>

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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

Adams, Natalie G.(2006) "Seating Arrangements", p. 21-22 in *Learning to Teach*. Mahwah, New Jersey, LEA

AND
Adams, Natalie G.(2006) "Taking Control of the Classroom" p.43-44 in *Learning to Teach*. Mahwah, New Jersey, LEA

Week 3

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

Parkay, Forrest W., Hass, Glen (2000) "Learning and Learning Styles" Chapter 4, **Curriculum Planning: A Contemporary Approach**. Boston, Allyn and Bacon

Adams, Natalie G.(2006) "Classroom Characteristics and Climate" p.67-69 In *Learning to Teach*. Mahwah, New Jersey, LEA

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"

"Getting Past Inquiry versus Content"

5 E's handout

"Brain Compatible Classroom Exercise" p.59-60 in *Learning to Teach*

Week 6

Institute for Inquiry Process Skills

Week 7

Marzano, Robert J. (2001) "Applying the Research On Instruction: An Idea Whose Time Has Come". Chapter 1 **Classroom Instruction that Works: Researched-Based Strategies for Increasing Student Achievement**. Alexandria, VA: ASCD

"Teacher Wait Time" p.55-57 in *Learning to Teach*

Week 8

"The Art of Questioning"

"Classroom Dialogue 2: Frequency" pp.63-65 in *Learning to Teach*

Week 9

Stiggins, Rick (October 2007) "Five Assessment Myths and Their Consequences" *Education Week*, Vol. 27, Issue 08, Pages 28-29

"Metaphors of Classroom Praxis" pp. 85-86 in *Learning to Teach*