EDUC 50-C: Cal Teach Science Seminar

EDUC 50C-01 – Fall 2007
CAL TEACH SEMINAR
(Science)
Monday 5:00-6:45

Course Instructor: Pat Kent
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Telephone: 831-459-1929
E-Mail: pkent@ucsc.edu
Office Hours: Tuesday 11:00 AM-2:00 PM

COURSE DESCRIPTION:
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
Open only to students in the Cal Teach program. 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
• Move from student identity to teacher identity
• Recognize parts of lesson plan
• Study and observe select learning theories/ understand student learning.
• Analyze and observe host teacher instruction.
• Analyze best practices in instructional techniques.
• Recognize, in contrast to direct and guided instruction, inquiry-based science instruction.
• Know and practice classroom procedures
• Understand classroom management

SEMINAR TASKS
• Model lesson based on host teacher’s lesson plan
• Classroom observations and reflections
• Classroom Activities OIS log
• Teacher Interview
• Next Steps Report

COURSE REQUIREMENTS:
1. Attendance: Attend weekly class meetings, complete assigned readings, and participate in discussions. Participation will be terminated after 3 or more absences in any required Cal Teach course.

2. Classroom Observations and Reflections: Conduct classroom observations in local middle or high school placements. Write reflections on classroom observations in the UC’s Online Information System (OIS). 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 OIS log every week starting Week 2. There after, the logs will need to be done every 2 weeks (due dates are week 2, 4, 6, 8) until all
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are imputed by December 7th. Be prepared to lead the class in discussions that focus on classroom observations and connections to required readings.

3. Teacher Interview: Conduct a teacher interview. Suggested questions will be distributed. Write a report summarizing the findings.

4. 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 rational for considering them as appropriate next steps. As potential next steps you may also include things you want to learn more about concerning teaching methods & philosophy.

If you are certain you are not going to continue with Cal Teach, summarize what you have learned and gained by being in the Cal Teach program this quarter and comment on why you are choosing not to continue, and reflect on what kind of teaching, if any, you might do in the future.

REQUIRED READINGS

**Week 1**

“Introduction: A Note On Observing In Classrooms” from *Learning To Teach*
“More Than Twelve Ways to Enjoy It All!”
“Classroom Management and Student Behavior”
Teaching Secrets: Hallway Hints II
“Teaching Secrets: Students Behave When Teachers Engage”

**Week 2**

“Learning and learning Styles”
&
“No Books, No Problem”
“Seating Arrangements”, p. 21-22 in *Learning to Teach.*
AND/OR
“Taking Control of the Classroom” p.43-44 in *Learning to Teach.*

**Week 3**

“Criteria for Evaluating Instructional Materials in Science, Kindergarten Through Grade Eight”

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

**Week 4**

“Revised Bloom’s With Question Stems”
“Multiple Intelligences Capacities Wheel”
“Brain Compatible Classroom Exercise”
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**Week 5**
“Getting Past Inquiry versus Content”
5 E’s handout
Process Skills handout

**Week 6**
“Teacher Wait Time” p.55-57 in *Learning to Teach*

**Week 7**
“The Art of Questioning”
“Classroom Dialogue 1: Frequency” pp.61-62 in *Learning to Teach*
and/or
“Classroom Dialogue 2: Frequency” pp.63-65 in *Learning to Teach*

**Week 8**
“Metaphors of Classroom Praxis” pp. 85-86 in *Learning to Teach*
## COURSE SCHEDULE:

### Week 1  October 1, 2007

<table>
<thead>
<tr>
<th>IN CLASS</th>
<th>OUTSIDE CLASS</th>
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</table>
| **Classroom procedures and management**  
Preparation for next meeting | **Classroom procedures and management**  
Preparation for next meeting |
| Introductions  
Distribute the syllabus and discuss course objectives  
Discuss purpose of Science and Math Initiative (SMI)  
Review initial meeting with classroom teacher: what to (or was) accomplish  
Class Activity: Pre-Observation – Your Concerns and Expectations and OIS: Online Information Systems Instructions Also  
Tool Kit Activity: Classroom Observing & Participating (how to both blend-in and dig-in) | Readings: Week 1  
“Introduction: A Note On Observing In Classrooms” from *Learning To Teach*  
Teaching Secrets: Hallway Hints II  
“Teaching Secrets: Students Behave When Teachers Engage”  
“More Than Twelve Ways to Enjoy It All!”  
“Classroom Management and Student Behavior”  
Complete “Significant Past School Experiences” p. 5-6 in *Learning to Teach.* |

### Week 2  October 8, 2007

<table>
<thead>
<tr>
<th>IN CLASS</th>
<th>OUTSIDE CLASS</th>
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</table>
| **Student Learning**  
Preparation for next meeting | **Student Learning**  
Preparation for next meeting |
| OIS: Online Information Systems Instructions & **tips** from those who have logged-in  
Debrief assigned activity: “Significant Past School Experiences”  
Discuss: Classroom management  
Hand out Glossary of Commonly Used Education Acronyms  
Toolkit Activity: Presentation Skills: Do’s and Don’ts & Best Practices | Readings: Week 2  
“Learning and learning Styles”  
“No Books, No Problem”  
“No Books, No Problem”  
“Seating Arrangements”, p. 21-22 in *Learning to Teach.*  
**AND/OR**  
“Taking Control of the Classroom” p.43-44 in *Learning to Teach.*  
REMINDER: ONLINE Log of Classroom Activities is due. |
Week 3  October 15, 2007

<table>
<thead>
<tr>
<th>IN CLASS</th>
<th>OUTSIDE CLASS Curriculum Development</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Preparation for next meeting</td>
</tr>
</tbody>
</table>

Debrief “Seating Arrangements” & “Taking Control of the Classroom” observation
Discuss: “Learning and Learning Styles” & “No Books, No Problem”

Toolkit Activity: Presentation Skills: Do’s and Don’ts & Best Practices

Readings: Week 3
“Criteria for Evaluating Instructional Materials in Science, Kindergarten Through Grade Eight”
“Textbook Analysis” p.51-52 in *Learning to Teach*

Week 4  October 22, 2007

<table>
<thead>
<tr>
<th>IN CLASS</th>
<th>OUTSIDE CLASS Student Learning</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Preparation for next meeting</td>
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</tbody>
</table>

Debrief “Textbook Analysis” observation
Discuss “Criteria for Evaluating Instructional Materials in Science, Kindergarten Through Grade Eight”

Toolkit Activity: Presentation Skills: Do’s and Don’ts & Best Practices continued

Readings: Week 4
“Revised Bloom’s With Question Stems”
“Multiple Intelligences Capacities Wheel”
“Brain Compatible Classroom Exercise” p.59-60 in *Learning to Teach*

REMINDER: ONLINE Log of Classroom Activities due.

Week 5  October 29, 2007

<table>
<thead>
<tr>
<th>IN CLASS</th>
<th>OUTSIDE CLASS Inquiry</th>
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<tbody>
<tr>
<td></td>
<td>Preparation for next meeting</td>
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</table>

Debrief “Brain Compatible Classroom Exercise” observation
Discuss Bloom’s Taxonomy & Multiple Intelligences
Discuss Teacher Interview assignment: what makes for a good interview

Toolkit Activity:

Readings: Week 5
“Getting Past Inquiry versus Content” 5 E’s handout
Process Skills

Conduct Teacher Interview

REMINDER: ONLINE Log of Classroom Activities is due next week.
Week 6 November 7, 2007

<table>
<thead>
<tr>
<th>IN CLASS</th>
<th>OUTSIDE CLASS</th>
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<tbody>
<tr>
<td>Preparation for next meeting</td>
<td>Reading: Week 6</td>
</tr>
<tr>
<td>3-Kinds of Hands-On Teaching Event</td>
<td>“Teacher Wait Time” p.55-57 in <em>Learning to Teach</em></td>
</tr>
<tr>
<td><strong>REMINDER:</strong> Teacher Interview is due next week</td>
<td><strong>REMINDER:</strong> ONLINE Log of Classroom Activities is due.</td>
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</tbody>
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Week 7 November 19, 2007

<table>
<thead>
<tr>
<th>IN CLASS</th>
<th>OUTSIDE CLASS</th>
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</thead>
<tbody>
<tr>
<td>Debrief “Teacher Wait Time” observations</td>
<td>Reading: Week 7</td>
</tr>
<tr>
<td><strong>Teacher Interview due</strong></td>
<td>“The Art of Questioning”</td>
</tr>
<tr>
<td>Class Activity: Teacher Interview Sharing</td>
<td>“Classroom Dialogue 1: Frequency” pp.61-62 in <em>Learning to Teach</em></td>
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<td>and/or</td>
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<td></td>
<td>“Classroom Dialogue 2: Frequency” pp.63-65 in <em>Learning to Teach</em></td>
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<tr>
<td><strong>REMINDER:</strong> ONLINE Log of Classroom Activities is due next week.</td>
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Week 8 November 26, 2007

<table>
<thead>
<tr>
<th>IN CLASS</th>
<th>OUTSIDE CLASS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Debrief “Classroom Dialogue” observation</td>
<td>Readings: Week 8</td>
</tr>
<tr>
<td>Discuss “About the Art of Questioning”</td>
<td><strong>Reading re: Assessment or Teacher Instruction</strong></td>
</tr>
<tr>
<td>Discuss “Final Reflection: Next Steps” assignment</td>
<td>“Metaphors of Classroom Praxis” pp. 85-86 in <em>Learning to Teach</em></td>
</tr>
<tr>
<td><strong>ONLINE Log of Classroom Activities due--FINAL</strong></td>
<td><strong>REMINDER:</strong> Written FINAL VERSION “Final Reflection: Next Steps” due next week.</td>
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</table>
Week 9  December 3, 2007

<table>
<thead>
<tr>
<th>IN CLASS</th>
<th>OUTSIDE CLASS</th>
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<tbody>
<tr>
<td>Debrief “Metaphors of Classroom Praxis”</td>
<td>Preparation for next meeting</td>
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<tr>
<td>observation</td>
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<tr>
<td>Discuss Reading re: Assessment or Teacher</td>
<td>REMINDER: ONLINE Log of Classroom Activities</td>
</tr>
<tr>
<td>Instruction</td>
<td>cumulative reflections is due December 7th.</td>
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<tr>
<td>Discuss “Final Reflection: Next Steps”</td>
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<td>assignment</td>
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PARTICIPANT EVALUATION FORMAT

Overall, this individual’s participation and written assignments indicate:

_____ Impressive
_____ Well-developed
_____ Satisfactory
_____ Uneven or minimal understanding of the ideas in the course.

Class participation:

_____ Made strong contributions to class meetings and discussions
_____ Provided constructive and thoughtful feedback to classmates
_____ Contributed insightful ideas and supported other classmates’ learning opportunities
_____ Actively listened and regularly contributed to classroom dynamics
_____ Was somewhat engaged during class meetings and discussions

Written Assignments:

Of the 10 written assignments _________ were late or missing.

The REQUIRED written Reflections on Classroom Observations displayed:

_____ Extremely thoughtful engagement with the ideas and readings
_____ Thoughtful engagement with ideas bearing some connection to readings
_____ Uneven engagement with ideas
_____ Contained no connection to readings

The REQUIRED OIS Log displayed:

_____ Significant involvement in the observation classroom
_____ Adequate involvement in the observation classroom
_____ Very little involvement in the observation classroom.
_____ Assignment was not submitted

The REQUIRED Teacher Interview assignment was:

_____ Extraordinary, a sincere personal reflection
_____ Well-developed with a clear description and an interesting explanation
_____ Satisfactory
_____ Not satisfactory
_____ Assignment was not submitted

The REQUIRED Cal Teach Final Reflection: Next Steps assignment was:

_____ Extraordinary, a sincere personal reflection
_____ Well-developed with a clear description and an interesting explanation
_____ Satisfactory
_____ Not satisfactory
_____ Assignment was not submitted
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Name: ________________________________

CALIFORNIA TEACH
SCIENCE SEMINAR

COURSE GRADING POLICY
20% Attendance
20% Classroom observations and reflections
10% Teacher interview
40% Teaching Activities OIS entries
10% Cal Teach Final Reflections: Next Steps paper

Late Papers deduct 20%
All material due by final class

<table>
<thead>
<tr>
<th>Attendance:</th>
<th>(20)</th>
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<tbody>
<tr>
<td><strong>Classroom Observations and Reflections:</strong></td>
<td>Teacher Interview</td>
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<tr>
<td>Significant Past School Experiences ____</td>
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<td>Multicultural Self _____</td>
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<tr>
<td>Seating Arrangements _____</td>
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<tr>
<td>Teacher Movement in the Classroom or Taking Control of the Classroom ____</td>
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<tr>
<td>Wait Time ____</td>
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<tr>
<td>The Use of Questioning Exercises 10.3-10.6 _____</td>
<td>(10)</td>
</tr>
<tr>
<td>Classroom Dialogue 1 or 2 _____</td>
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<tr>
<td>(20)</td>
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<tr>
<td><strong>OIS Classroom Activities Log</strong></td>
<td>Cal Teach Final Reflection: Next Steps</td>
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<td>(40)</td>
<td>(10)</td>
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