

**EDUC 50B- WINTER 2016**  
**CAL TEACH 1 MATHEMATICS SEMINAR**  
**TUESDAYS 6:00-7:45 PM**  
**JACK BASKIN ENGINEERING 160**

**Course Instructor:** Hayley Vandercook

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**Office Hours:** 30 minutes before and after class or by appointment

**COURSE DESCRIPTION:**

The overarching objective of this course is to provide an introduction to the career of teaching math in 6-12 grade level. Students analyze and evaluate classroom observations and education issues related to their placements in secondary math classrooms. Coursework includes readings with written reflections, seminar participation and written weekly classroom observations. This quarter focuses on structure of school and classroom culture, how teachers prepare and implement lessons and how students learn math.

**SEMINAR OUTCOMES:**

- Cal Teach intern will move from student identity to teacher identity
- Recognize parts of a lesson plan
- Practice lesson presentation skills
- Observe and reflect upon host teacher instruction
- Recognize classroom management and begin to practice classroom procedures
- Develop familiarity with Common Core Mathematical Practice Standards with an emphasis on Algebra I content

**COURSE REQUIREMENTS and GRADING:**

1. Seminar Attendance and Participation (**25%**): Attend weekly class meetings, complete assigned readings, and actively participate in discussions. You will also be required to present a short mini-math activity based on your Algebra 1 standard to the seminar class.
2. Online time sheet and internship participation (10%): 24 hours of class time is the minimum; you should have 12 hours completed by the midpoint of the quarter. Get involved in the classroom by working with students individually or in a small groups, leading a warm-up activity or lab activity, leading a “what it’s like to be a college student” type discussion, or other activities that your host teacher suggests, including actually teaching the class. Log the hours each time you visit the classroom in your Online Google Docs time sheet (instructions in orientation folder).
3. Reflection Papers and Written classroom Observations (**45%**): Complete 1-2 page papers, topics assigned weekly. (9 papers; 5% each). Conduct classroom observations in placement, complete directed observations assignments from weekly prompt.

Including:

- Teacher Interview: Conduct a teacher interview. Suggested questions will be distributed. Write a report summarizing your findings.
- Cal Teach Final Reflections: Next Steps paper. At the end of the quarter, after observing and assisting in a secondary mathematics class, think back on the experience and write about your next steps. This may include ways of participating in the classroom you already have done 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 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. 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.

4. Algebra I Final Project (20%): Lesson Plan Poster & Presentation. This will be a culminating project presented to your peers at last seminar meeting. Poster instructions to be provided over multiple weeks with the components building to the final poster.

Due Date	Topics	Readings/Videos	Written Assignments
1/12	Introduction to being a math teacher!	<ul style="list-style-type: none"> <li>• Watch <b>Ted Talk</b>- Dan Meyer: Math Class needs a Makeover</li> <li>• Read Article: “Gifted a Motivation Perspective” Prepare to discuss how the ideas of “growth” vs “fixed” relate to your learning up to this moment to prepare for an active discussion.</li> </ul>	<ol style="list-style-type: none"> <li>1. Classroom observation: How do the physical attributes of the classroom and teacher contribute to the success or failure of student learning?</li> <li>2. Written Reflection: “Significant Past School Experiences” in <i>Learning to Teach</i>.</li> </ol>
1/19	Classroom Management	<ul style="list-style-type: none"> <li>• “The Critical Role of Classroom Management”</li> <li>• Hi-light and prioritize 3 most interesting points and write out the main ideas or questions you have. Prepare to support you choices in a discussion format.</li> </ul>	<ol style="list-style-type: none"> <li>1. Classroom observation: What is the driving force in your classroom. IE: teacher personality, content, students, something else?</li> <li>2. Written Reflection: <u>One Paper</u> integrating thoughts from: “<b>Seating Arrangements</b>” and “<b>Taking Control of the Classroom</b>” in <i>Learning to Teach</i>.</li> </ol>
1/26	Attributes of a “good math teacher”	<ul style="list-style-type: none"> <li>• Read: Chapter 1 <b>Every Minute Counts</b></li> </ul>	<ol style="list-style-type: none"> <li>1. Classroom observation: What ways do you observe students demonstrate or respond to confusion, lack of understanding or frustration with math concepts. How do they shape problems or confusion etc with personal issues. What ways do they show disinterest or lack of motivation?</li> <li>2. Written Reflection: Write a 1-2 page paper on the three classroom observations you have made. Relate what you observe to the articles we have read and discussed in class.</li> </ol>
2/2	Climate of the class	<ul style="list-style-type: none"> <li>• Read: Chapter 2 <b>Every Minute Counts</b></li> </ul>	<ol style="list-style-type: none"> <li>1. Classroom observation: Make notes of the level of questions being asked in the lessons you are observing.</li> <li>2. 1-2 pg paper integrating concepts from “Classroom Characteristics and Climate” p.67-69 In <i>Learning to</i></li> </ol>

			<b>Teach.</b>
2/9	Teacher Wait Time	<ul style="list-style-type: none"> <li>Read Ch. 3 <b>Every Minute Counts</b></li> </ul>	<ol style="list-style-type: none"> <li>Classroom observations: Take notes of what students are doing to learn the material being presented?</li> <li>1-2 pg paper "Teacher Wait Time" p.55-57 in <b>Learning to Teach</b> integrated with reading, discussions and observations.</li> </ol>
2/16	Questioning	<ul style="list-style-type: none"> <li>Finish <b>Every Minute Counts</b></li> <li>Conduct Teacher Interview (due 11/24)</li> </ul>	<ol style="list-style-type: none"> <li>Classroom observations: "The Art of Questioning" Make note of 3 question asking strategies you observe in your placement.</li> <li>Written Reflection: Write a 1-2 page paper on the three classroom observations you have made. Relate what you observe to the articles we have read and discussed in class.</li> </ol>
2/23	Equality	<ul style="list-style-type: none"> <li>Read: What's holding teenagers back?</li> <li>Watch: TED TALK: Malcolm London- "High School Training Ground"</li> </ul>	<ol style="list-style-type: none"> <li>Classroom observations: Describe your time in front of classroom, wait time, nerves, content. How did it go?</li> <li>Teacher Interview</li> </ol>
3/1	Lesson Planning	<ul style="list-style-type: none"> <li>Work on Lesson plan!</li> </ul>	<ol style="list-style-type: none"> <li>Classroom observations. General observation of choice. List out 2-3 questions about the profession of teaching.</li> <li>Print out all parts for your lesson plan poster</li> <li>Written assignment: Turn in completed Lesson Plan using the lesson plan template.</li> </ol>
3/8	Lesson Presentation	<ul style="list-style-type: none"> <li>FINISH POSTER</li> </ul>	<ol style="list-style-type: none"> <li>1 – 2 pg paper. "Final Reflection: Next Steps" due next week. [Note: this is put in your Cal Teach file.]</li> <li>Lesson Plan Poster</li> </ol>