EDUCATION 263D: CURRICULUM & INSTRUCTION ELECTIVE IN MATHEMATICS  
TUESDAYS, 3:15 PM – 6:15 PM  
CERAS 218

INSTRUCTOR: MEGAN SELBACH-ALLEN  
EMAIL: mselbach@stanford.edu  
office hours immediately following class or by email appointment

COURSE OVERVIEW:
This is a condensed overview of mathematics teaching and learning designed to follow a three-course sequence in methods of curriculum and instruction intended for non-mathematics focused secondary teachers, multi-subject elementary teachers or in-service teachers in subjects outside of mathematics. The course aims to provide an opportunity for sustained learning and professional growth. The goals of the course are to help you:

- examine your own knowledge, beliefs, and assumptions about mathematics, teaching, and students,
- increase your knowledge of mathematics and mathematics pedagogy,
- increase your theoretical knowledge and practical experience in planning, teaching, and assessing mathematics,
- address the mathematical needs of a diverse range of students,
- recognize the complexities of diverse, multiple-ability classrooms while broadening your repertoire of teaching techniques, and
- learn from your experiences in schools through informed reflection.

Throughout the course, we will consider the eight Common Core State Standards for Mathematical Practice and the Common Core State Standards for Mathematics content. We will analyze teaching practices in many ways, considering the role played by mathematics, the teacher, and the students. Different examples of practice will be discussed, analyzed and digested through personal reflection. We will also engage in mathematical tasks that will place you as learners of mathematics and pedagogy. We will consider the importance of close and respectful listening to students’ mathematical thinking and the value in asking open questions to probe and deepen understanding. There will be a joint focus throughout the course on connecting research and practice.

COURSE REQUIREMENTS:
You are expected to come to class having completed the reading and assignments due for that day and prepared to participate in class discussions and activities. Participation with all sessions is expected. Please give ample notice if you will be late, or plan to miss a class. You can request an extension on a due date, but please be proactive and make requests in a timely manner.

Assignments: Please turn in all assignments to Canvas or Google Drive by the due date. File names should include your last name and the assignment title.

- Math History due by noon on Tuesday, April 5th
- In-Class assignments these assignments will be building to the final project for the course the task-based lesson plan (should have time to complete during class most weeks)
- Cross Content Observation due before class Tuesday, May 10th
• **Draft of Lesson Plan** - complete part 1 due before class Tuesday, May 17th
• **Annotated Task-Based Lesson Plan** due Friday, June 3rd at 3pm

**Submitting Assignments:**
Students with access to Canvas should submit assignments in Canvas and students without access to Canvas should submit assignments to the google folder with your name. All feedback will be provided digitally within your submitted documents, and either re-posted to Canvas or emailed to you. Please submit all files as Google Docs, unless otherwise specified.

Please save all files using the following naming convention:
*Lastname_Assignment*. For example: *Selbach-Allen_Task-Based_Lesson_Plan*

**Assessments and Grading:**
Your grade will be based primarily on the completion of the assignments mentioned in class. Attendance and active contributions to all zoom class activities will also be considered in your final grade. As with all your work in C&I this year, you may revise and resubmit any written assignment for a higher grade.

I expect that you will turn in all assignments by the time/due date posted in Canvas. Please contact me well in advance if you have concerns about completing any assignment on time. Extensions will likely be granted, if requested, but there are university deadlines at the end of the quarter to ensure completion of work prior to graduation that cannot be waived. Late work that is submitted without an extension may be subject to a grade penalty and delayed entry into the grade book.

To earn an A in this class you are required to attend each class (makeup work for excused absences), satisfactorily complete all assignments and actively participate during class. Students missing multiple classes, assignments or not satisfactorily completing work will be awarded lower grades.

**Absences:**
Absences are for major illness, family emergencies or other comparable extenuating circumstances. In such instances, students are responsible for contacting the instructor before class, and for completing any work missed due to absence. Missing class(s) without communicating may result in a grade penalty as active participation in class is important for the learning of all students.

**UNIVERSITY POLICIES:**
All Stanford students are expected to follow the **Stanford Honor Code** and **Fundamental Standard**, as noted in the STEP Handbook and Stanford Student Guide. Website: *https://communitystandards.stanford.edu/student-conduct-process/honor-code-and-fundamental-standard*

**Students Needing Academic Accommodations:**
Students with an academic accommodation based on the impact of any medical condition must initiate the request with the Office of Accessible Education (OAE). Professional staff will
evaluate the request with required documentation, recommend reasonable accommodations, and prepare an Accommodation Letter for faculty dated in the current quarter in which the request is being made. Students should contact the OAE as soon as possible since timely notice is needed to coordinate accommodations. The OAE is located at 563 Salvatierra Walk (phone: (650) 723-1066, URL: http://studentaffairs.stanford.edu/oae). If you have an undocumented need or something that is not provided by the OAE, please speak with your instructor to reach acceptable terms that will allow you to participate in the course fully, without restriction.

**COURSE SCHEDULE: *NOTE THIS SCHEDULE AND READINGS MAY BE UPDATED OR CHANGED TO ACCOUNT FOR CLASS INTERESTS OR OTHER UNFORESEEN CIRCUMSTANCES***

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<th>Session</th>
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<th>Readings</th>
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<td>1</td>
<td>3/29</td>
<td><strong>Focusing on multiple strategies</strong></td>
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<td>2</td>
<td>4/5</td>
<td><strong>Big ideas, Learning Objectives, and Concept Mapping</strong></td>
<td><strong>Math History Essay</strong></td>
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<td><strong>Assessments and Rubrics</strong></td>
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<td>4/18</td>
<td>Classroom culture and establishing sociomathematical norms</td>
<td>Jackson, K. J. (2010). <em>The Social Construction of Youth and Mathematics: The Case of a Fifth-Grade Classroom.</em> (half of class)</td>
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<td>Reinhart, S. (2000). <em>Never say anything a kid can say!</em></td>
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<td>Date</td>
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Draft of part 1 of Lesson Plan |
Due Friday, 6/3 at 3pm on Canvas. |
**READINGS**


Common Core Standards for Mathematical Practice (2010), (pp. 6-8).


