

EDU/GEL 183

Fall Quarter 2020 Syllabus

Lecturer
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Topical Outline

The CalTeach/MAST III (Math and Science Teaching) seminar is designed for 3rd and 4th year students and focuses on teaching practices in high school science and math classrooms. Through selected readings, seminar discussion, and field videos provided by ATLAS, students will gain understanding what it means to teach science or math in a high school setting, and explore the CA State Standards for math (Common Core) and the New Generation Science Standards (NGSS) for science.

Internships:

Due to Covid-19, public area schools offer virtual instruction only. By now you should have had the opportunity to pick out a virtual internship assignment. Since this does not give you a “Brick and Mortar” internship experience, you will be watching authentic video recordings by National Board-Certified Teachers and reflect on these scenarios (ATLAS). You will receive an invitation to participate in ATLAS once I have uploaded your email into the website. If schools are going back to in-person teaching later during fall quarter, you might have the opportunity to visit for some hours but please do not count on it.

It is necessary to collect for 30 internship hours to pass EDU/GEL 183. This requirement may be subject to change if necessary. Internship hours count as hours towards entering a credential program. Internship hours must be logged on the CalTeach website: <https://calteach.ucop.edu> with a brief description of the internship session (no reflection required).

ATLAS VIDEOS

Each week, you will select a video in your subject area and write a reflection on that video using that week’s writing prompt. You will have many videos to choose from and you may need to look into several before you find a video that you are satisfied with. The reflection consists of a brief **description** of the lesson you watched AND a **reflection** that addresses the weekly prompt. Description and reflection need to be done in two **SEPARATE** paragraphs. In the assignment slot on Canvas, indicate the number of the video (e.g. # 1900) AND the title of the video you chose. Videos you choose must either be from science or mathematics and from grades 9-12.

DISCUSSIONS

Four virtual discussions will be held.

Community Norms

All voices are welcomed, encouraged and respected in this space.

| | |
|-----------------|--------------------------------------|
| Reflect | Think before you speak. |
| Empower | Empower yourself and others. |
| Share | Share your voice and space. |
| Push | Participate until something happens. |
| Elmo | Enough, let’s move on. |
| Confidentiality | Share the knowledge, not the story. |
| Tech Check | Be mindful; be present. |

Zoom Etiquette for Participants

- Use your first and last name as your screen name.
- Please have your camera on, choose a virtual background if you strive for privacy.
- Please raise your hand before speaking. (Click Participants, Raise Hand)
- Prevent noisy distraction such as pets, kids or room noise.
- Don't eat during a Zoom meeting.
- Mute yourself if you are not actively participating.

- If monitored by your facilitator, use the Chat feature whenever possible.
- Dress appropriately

Outline by Session (week) Subject to Change

Week 0 9/30

- Introduction & Information on course requirements and logistics, internships
 - If time permits: First look at the CA State Teaching Standards: New Generation Science Standards and Common Core State Standards. Links are available on the class homepage on Canvas
 - **Discussion 1 (on Canvas)**

Due 10/6: *Assignment. Enter the assignment into the assignment section on Canvas. 250 words minimum.*

- **Every Minute Counts: Making your math class work. The text can be found on Canvas in module 1.** Write a reflection about this very handy companion. How do the math classrooms **you** attended during **your** high school career differ from David Johnson's classroom? How were they the same?

Due 10/4, Thoughts on Teaching. 250 words minimum:

Write about three things you hope to see happen in a classroom. Math majors: What should a good math lesson look like? Science majors: What should a good science lesson look like?

Record your reflection on Canvas by Sunday 11:59 pm.

Week 1, 10/7

- NGSS – Susann Pinter
- Common Core – TBD

Due 10/13: *Assignment. Enter the assignment into the assignment section on Canvas. 250 words minimum.*

Teach like a Champion 2nd edition: Read chapters 4 and 5. You need to **read** this information to be able to create a meaningful lesson plan! Start thinking about a topic you want to create a lesson plan for and create a three to five-minute “hook” that engages the students and sets up your lesson. A **lesson hook** is an introduction or opening into a **lesson** that grabs the students' attention. A **lesson hook** is an opportunity to inject energy into a new learning journey and to create an eagerness to find out more.

Due 10/11, Week 1, Reflection 1: 250 words minimum:

Select an ATLAS Video

Write down your thoughts about the classroom video you watched: was learning going on, was teaching going on, was the teacher in control of the class room, did anything noteworthy happen?

Record your reflection on Canvas by Sunday 11:59 pm

Week 2, 10/14

- Developing a positive classroom environment (Classroom Management)
 - Behavioral expectations and accountability
- Lesson Planning (**first draft due 11/4 on Canvas, final draft due 12/18 on Canvas**)
 - Develop a lesson plan on a science or math topic of your choice. Choose the grade level you want to develop a lesson plan on, any grade level 9 -12 is appropriate. Use the New Science Generation Standards or the Common Core State Standards as your guide. You can find a link to them on our class homepage on Canvas
 - Download the appropriate lesson plan template from Canvas: science students download the **NGSS** template and math student download the **Common Core** template. Use these templates to complete your lesson plan.
 - **Discussion 2 (on Canvas)**

Due 10/20: Assignment. Enter the assignment into the assignment section on Canvas. **250 words minimum.**

- **Teach like a Champion 2nd edition: Read chapter 10 and 11** and watch video clips # 47 - #49, #52, #57, #58, #60, #61, #63

Reflect on these two chapters and answer the following question: *How would your IDEAL classroom look like and how will the students in this classroom behave ideally?*

Due 10/18, Week 2, Reflection 2: 500 words minimum:

Select an ATLAS Video

Classroom Management:

Watch how the teacher in the recording handles classroom management and how she/he tries to create a positive classroom environment. In addition, I have uploaded an article on classroom management. Read the article. Do you agree with the practices described? Disagree? What did you take away from the article? Did the teacher in the video utilize any of the techniques described in the article?

Record your reflection on Canvas by Sunday 11:59 pm

Week 3, 10/21

- Differentiation: Does the one-size-fit-all class room actually work?
 - Helping ALL students learn
 - Helping students identify what they don't understand
 - Using student mistakes to guide instruction
 - How to tailor individual instruction to students

Due 10/27: Assignment. Enter the assignment into the assignment section on Canvas. **250 words minimum.**

- **Teach like a Champion 2nd edition: Read chapter 1 and 2.** and watch **video clips #1-#8.** Download "Understanding differentiated instruction" from Canvas.
- _Reflect on those two chapters and answer the following question: *What is meant by "culture of error"? Do you think this is a useful concept and how do the teachers in the video clips use the concept of "culture of error"? How can differentiated instruction help?*

Due 10/25, Week 3, Reflection 3: 250 words minimum:

Select an ATLAS Video

Reflect on how the teacher potentially uses differentiated instruction in the classroom. Can you identify any differentiated instruction or not? If you cannot identify any differentiated instruction, how would you differentiate in order to help students in need?

Record your reflection on Canvas by Sunday 11:59 pm.

Week 4, 10/28

- Styles of teaching:
 - Pros and cons of various teaching styles

Due 11/3: Assignment. Enter the assignment into the assignment section on Canvas. **250 words minimum.**

- **Teach like a Champion 2nd edition: Read chapter 7** and watch **video clips # 29 and #34** and respond to the prompt below:
Compare and contrast the technique of "cold call" and "wait time". Do you prefer one or the other? What are the benefits and draw backs of both these techniques?

Due 11/1, Week 4, Reflection 4: 250 words minimum:

Select an ATLAS Video

Describe the teacher's style of teaching. Is it student centered, teacher centered or a hybrid? Does the selected teaching style work for the teacher and the selected topic she/he is teaching?

Record your reflections on Canvas by Sunday 11:59 pm

Week 5 11/4

- Engaging the learner:

- Questioning techniques
- Teaching ELL Students
- The emotional classroom. Important questions to ask your students:
https://www.edutopia.org/article/important-questions-ask-your-students?utm_source=Edutopia+Newsletter&utm_campaign=f5e375ea2c-EMAIL_CAMPAIGN_082218_enews_importantquestion&utm_medium=email&utm_term=0_f72e8c8c4-f5e375ea2c-84982771
- Class discussion: Cold calling vs. wait time

Due 11/10: Lesson plan peer evaluations. Peer evaluations are set up through Canvas and are randomly assigned.

Due 11/8, Week 5, Reflection 5: 250 words minimum:

Select ATLAS Video Case #190

Today, you are going to watch a video **Case #190** on ELL (English Language Learners) students. How does the teacher support ELL students? In addition, read the paper in the Educator Toolkit for ELLs (it is uploaded in this week's module). Using the findings in this paper, reflect how a teacher can effectively help English Language learners understand the material taught in school using technology.

Record your reflections on Canvas by Sunday 11:55 pm.

Week 6, 11/11

- Technology
 - PhET interactive simulations (<https://phet.colorado.edu>)
 - **Discussion 3 (on Canvas)**

Due 11/17: Assignment due on Canvas, 250 words minimum

- Choose a PhET simulation and evaluate its educational value.

Due 11/15, Week 6, Reflection 6: 250 words minimum:

Select an ATLAS Video

And read the article "Technology in the Classroom" (uploaded on this week's Canvas module). Do you see any technology used in the video you watched that is reflected in the article?

Record your reflections on Canvas by Sunday 11:59 pm

Week 7, 11/18

- So, you want to teach: Credentialing Program Information
 - **Discussion 4 (on Canvas)**

Due 11/24: REVISED LESSON PLANS uploaded to Canvas!

Due 11/22, Week 7, Reflection 7: 250 words minimum:

Select an ATLAS Video

Pay close attention to what *students* are doing during this lesson. Are they engaged? Do some seem to "tune out?" (#1900 is a great video to watch but you may want to select your own)

Record your reflections on Canvas by Sunday 11:59 pm.

Week 8, 11/25

THANKSGIVING WEEK: NO CLASS

Due 12/1: Assignment. Enter the assignment into the assignment section on Canvas. 250 words minimum.

- *Teach like a Champion 2nd edition: Read chapter 3* watch video clips # 9, #15, #16, #18 and write about the following prompt: *Try to imagine the most boring science or mathematics content (to you) that you could teach. Now script the first five minutes of your class in which you find a way to make this boring topic exciting and engaging to your students.*

Week 9, 12/2

- Number Talk and other Mathematics Learning Strategies
 - Create a poster in class to present in session 10

Due 12/6, Week 9, Reflection 9: 250 words minimum:

Select an ATLAS Video

Describe the selected lesson that was taught and reflect on that lesson.

Record your reflections on Canvas by Sunday 11:59 pm.

Week 10, 12/9

- Virtual poster presentations

Due 12/13, Week 10, Reflection 10: 250 words minimum:

By now you have watched 9 different ATLAS videos, Teach Like a Champion videos and you interned with a teachers in an online setting.

What characteristics of the teachers at work would you like to emulate? What would you not emulate and why?

Record your reflections on Canvas by Sunday 11:59 pm.

Final Paper

There will be a take home final. Prompt will be posted Wednesday 12/9 on Canvas. It is due Wednesday 12/16 on Canvas 8:00 AM

1. READINGS

Readings are selected from the following books:

- *Every Minute Counts. Making Your Math Class Work.* Johnson, David (*uploaded as a pdf to Canvas*).
 - *Common Core State Standards*, CA Department of Education; access through Canvas
 - *New Generation Science Standards*; access through Canvas
 - *Teach like a Champion*, Doug Lemov, 2nd edition,
 - To support remote instruction during Fall 2020, *Teach like a Champion* is available in digital format and will be provided as e-books.
 - To access the e-books available for your courses, click on the BOOKSHELF option in the Canvas navigation menu.
 - You have Auto-Access for any required textbook but can opt out in the Bookshelf window if you make other arrangements for the text.
 - The access charge will be billed for any items showing a status of “Opted In” after the 14th day of instruction.
 - For questions regarding content access, billing, please contact the student support desk at inclusiveaccess@ucdavis.edu.
 - For questions regarding functionality of the Bookshelf e-reader, please contact the Vital Source support desk at support@vitalsource.com.
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2. GRADING PERCENTAGES

40% 9 video reflection papers and 1 non-video reflection paper, minimum 250 words each (always due each Sunday at 11:59 pm on Canvas):

- 10 pts. on time + exceptionally well done + exceptional professional writing + **description** of the lesson and **reflection** are submitted + writing prompt is observed
- 8 pts. well done, criteria mostly met but not outstanding
- 7 pts 1-2 days late and/or lesson description missing, and/or writing prompt not observed
- 6 pts. badly done or under the 250 word limit
- 5 pts. over 4 days late
- 0 pts. Not turned in

What is a reflection paper?

The weekly reflection consists of a brief **description** of the lesson/s you watched in **AND** a **reflection** that addresses the weekly prompt. Description and reflection need to be done in two **SEPARATE** paragraphs.

30% Assignments include:

- Assignments with associated “Teach Like a Champion” reading (due always Tuesday’s 11:59 pm on Canvas in the assignment section)
- Lesson plan
- Discussion board
- Virtual poster

20% Intern participation includes:

- 30 internship hours **verified** by your mentor teacher) (**internship verification sheet uploaded by 12/18 as pfd**)
- Mentor teacher evaluation

10% final paper

1. JUSTIFICATION FOR UNIT(S) OF CREDIT

This course will meet for 2 hours of lecture/discussion each week via Zoom. During lecture/discussion sessions, basic concepts of teaching a math and science class will be introduced, and the CA State Standards for math and the NGSS for science will be examined. In addition, you will be spending about 3 hours per week examining recorded classroom videos by **National Board-Certified Teachers** and reflecting on their lessons.

ADDITIONAL INFORMATION FOR STUDENTS:

2. The U.S. Department of Education determined that UC Davis needed to institute measures for validating that students participate in their registered classes. To comply with this mandate, in September 2019 the campus will require students to verify that they have begun each course for which they are registered via the Academic Participation program. This program also encourages students to acknowledge their responsibilities regarding academic integrity and the Code of Academic Conduct, reinforcing our campus culture of honesty. participate.ucdavis.edu

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