

<b>Course &amp; Section Nos.</b>	<b>EDSS 543A</b>
<b>Course Title</b>	<b>SECONDARY MATHEMATICS EDUCATION</b>
<b>Class Roster No.</b>	<b>41113</b>
<b>Course Day(s)</b>	<b>Selected Thursdays</b>
<b>Time</b>	<b>5:00-8:00 pm</b>
<b>Course Location</b>	<b>University Hall 439</b>
<b>Semester / Year</b>	<b>Fall 2017</b>
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### **SCHOOL OF EDUCATION MISSION & VISION STATEMENT**

*(Adopted by SOE Governance Community, January 2013)*

#### ***Vision***

To serve the educational needs of local, regional, and global communities, the School of Education advances innovative practice and leadership by generating, embracing, and promoting equitable and creative solutions.

#### ***Mission***

The mission of the School of Education community is to collaboratively transform education. We:

- Create community through partnerships
- Promote and foster social justice and educational equity
- Advance innovative, student-centered practices
- Inspire reflective teaching and learning
- Conduct purposeful research
- Serve the school, college, university, and community

### **BASIC TENETS OF OUR CONCEPTUAL FRAMEWORK**

- Student centered education
- Research and theory specific to the program field inform practice
- Connections and links between coursework and application
- Strong engagement between faculty and candidates
- Co-teaching clinical practice
- Culturally responsive pedagogy and socially just outcomes

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## COURSE DESCRIPTION

Focuses on developing an understanding of theory, methodology, and assessment of Mathematics in integrated and inclusive secondary classrooms: Part A.

### Course Prerequisites

Admission to the Single Subject Program, EDUC 350, EDUC 364 & EDUC 422

### Course Objectives

Upon successful completion of this course, students will (be able to):

1. Design and implement evidence-based pedagogy in ways in which make mathematics content accessible to all students. (TPE 4)
2. Assess students' mathematics understandings and plan future instructional tasks that support students in building on their current understandings. (TPE 5)

### Unique Course Requirements

As part of this course, teacher candidates will be required to attend a symposium held on CSUSM campus. Please see the assignments section for additional details regarding this aspect of the course. In addition, teacher candidates will engage in online asynchronous collaborative around problem solving activities and collective reflection on classroom practice.

\*\*The meetings dates for this course will also be variable. We will meet on seven Thursdays during the term, one Wednesday, and one Saturday. Please be sure to review the schedule of meeting dates and let the instructor know of any conflicts within the first week of our first class (Thursday, August 31<sup>st</sup>).

## REQUIRED TEXTS, MATERIALS AND/OR ACCOUNTS

### Recommended Texts

Boaler, J. (2015). Mathematical mindsets: Unleashing students' potential through creative math, inspiring messages and innovative teaching, John Wiley & Sons.

Smith, M. & Stein, M (2011). 5 practices for orchestrating productive mathematics discussions. National Council of Teachers of Mathematics, Reston, VA: Thousand Oaks, CA.

### Required Texts

There are no required texts for this class.

### Required Materials/Accounts

1. Electronic readings will be provided on the EDSS 543A cougar course each week. <http://cc.csusm.edu>
2. Single Subject Website <http://csusmsinglesubjectprogram.weebly.com/> and links provided on website.
3. Taskstream Account <http://www.taskstream.com>
4. edTPA Handbook available electronically through Taskstream account, \$300 for edTPA in Spring
5. PoW account available on the Math Forum's website for \$25. See below in the assignments section for additional details.

## COURSE LEARNING OUTCOMES

Upon successful completion of this course, students will (be able to):

1. Design and implement evidence-based pedagogy in ways in which make mathematics content accessible to all students. (TPE 4)
2. Assess students' mathematics understandings and develop questions/tasks that support students in further developing their mathematical thinking. (TPE 5)

### **Authorization to Teach English Learners**

This credential program has been specifically designed to prepare teachers for the diversity of languages often encountered in California public school classrooms. The authorization to teach English learners is met through the infusion of content and experiences within the credential program, as well as additional coursework. Candidates successfully completing this program receive a credential with authorization to teach English learners. *(Approved by CCTC in SB 2042 Program Standards, August 02)*

### **Teacher Performance Expectation (TPE) Competencies**

The course objectives, assignments, and assessments have been aligned with the CTC standards for (Single Subject, Multiple Subject, Special Education, etc.) Credential. This course is designed to help teachers seeking a California teaching credential to develop the skills, knowledge, and attitudes necessary to assist schools and district in implementing effective programs for all students. The successful candidate will be able to merge theory and practice in order to realize a comprehensive and extensive educational program for all students. You will be required to formally address the following TPEs in this course:

#### **TPE 1. Engaging and Supporting All Students in Learning**

**Addressed Primarily in ELD infused lesson design with reflection; Secondly in Online Problem-Solving Series**

1. Apply knowledge of students, including their prior experiences, interests, and social emotional learning needs, as well as their funds of knowledge and cultural, language, and socioeconomic backgrounds, to engage them in learning.
2. Maintain ongoing communication with students and families, including the use of technology to communicate with and support students and families, and to communicate achievement expectations and student progress.
3. Connect subject matter to real-life contexts and provide active learning experiences to engage student interest, support student motivation, and allow students to extend their learning.
4. Use a variety of developmentally and ability-appropriate instructional strategies, resources, and assistive technology, including principles of Universal Design of Learning (UDL) and Multi-Tiered System of Supports (MTSS) to support access to the curriculum for a wide range of learners within the general education classroom and environment.
5. Promote students' critical and creative thinking and analysis through activities that provide opportunities for inquiry, problem solving, responding to and framing meaningful questions, and reflection.
6. Provide a supportive learning environment for students' first and/or second language acquisition by using research-based instructional approaches, including focused English Language Development, Specially Designed Academic Instruction in English (SDAIE), scaffolding across content areas, and structured English immersion, and demonstrate an understanding of the difference among students whose only instructional need is to acquire Standard English proficiency, students who may have an identified disability affecting their ability to acquire Standard English proficiency, and students who may have both a need to acquire Standard English proficiency and an identified disability.
7. Provide students with opportunities to access the curriculum by incorporating the visual and performing arts, as appropriate to the content and context of learning.
8. Monitor student learning and adjust instruction while teaching so that students continue to be actively engaged in learning.

## **TPE 2. Creating and Maintaining Effective Environments for Student Learning**

### **Addressed Primarily in Lesson Analysis; Secondly in Online Problem-Solving Series**

1. Promote students' social-emotional growth, development, and individual responsibility using positive interventions and supports, restorative justice, and conflict resolution practices to foster a caring community where each student is treated fairly and respectfully by adults and peers.
2. Create learning environments (i.e., traditional, blended, and online) that promote productive student learning, encourage positive interactions among students, reflect diversity and multiple perspectives, and are culturally responsive.
3. Establish, maintain, and monitor inclusive learning environments that are physically, mentally, intellectually, and emotionally healthy and safe to enable all students to learn, and recognize and appropriately address instances of intolerance and harassment among students, such as bullying, racism, and sexism.
4. Know how to access resources to support students, including those who have experienced trauma, homelessness, foster care, incarceration, and/or are medically fragile.
5. Maintain high expectations for learning with appropriate support for the full range of students in the classroom.
6. Establish and maintain clear expectations for positive classroom behavior and for student-to-student and student-to-teacher interactions by communicating classroom routines, procedures, and norms to students and families.

## **TPE 3: Understanding and Organizing Subject Matter for Student Learning**

### **Addressed Primarily in Lesson Analysis; Secondly in Online Problem-Solving Series**

1. Demonstrate knowledge of subject matter, including the adopted California State Standards and curriculum frameworks.
2. Use knowledge about students and learning goals to organize the curriculum to facilitate student understanding of subject matter, and make accommodations and/or modifications as needed to promote student access to the curriculum.
3. Plan, design, implement, and monitor instruction consistent with current subject-specific pedagogy in the content area(s) of instruction, and design and implement disciplinary and cross-disciplinary learning sequences, including integrating the visual and performing arts as applicable to the discipline.<sup>1</sup>
4. Individually and through consultation and collaboration with other educators and members of the larger school community, plan for effective subject matter instruction and use multiple means of representing, expressing, and engaging students to demonstrate their knowledge.
5. Adapt subject matter curriculum, organization, and planning to support the acquisition and use of academic language within learning activities to promote the subject matter knowledge of all students, including the full range of English learners, Standard English learners, students with disabilities, and students with other learning needs in the least restrictive environment.
6. Use and adapt resources, standards-aligned instructional materials, and a range of technology, including assistive technology, to facilitate students' equitable access to the curriculum.
7. Model and develop digital literacy by using technology to engage students and support their learning, and promote digital citizenship, including respecting copyright law, understanding fair use guidelines and the use of Creative Commons license, and maintaining Internet

## **TPE 4. Planning Instruction and Designing Learning Experiences for All Students**

### **Addressed Primarily in ELD Infused Lesson Design with Reflection; Secondly in Lesson Analysis**

1. Locate and apply information about students' current academic status, content- and standards-related learning needs and goals, assessment data, language proficiency status, and cultural background for both short-term and long-term instructional planning purposes.
2. Understand and apply knowledge of the range and characteristics of typical and atypical child development from birth through adolescence to help inform instructional planning and learning experiences for all students.

3. Design and implement instruction and assessment that reflects the interconnectedness of academic content areas and related student skills development in literacy, mathematics, science, and other disciplines across the curriculum, as applicable to the subject area of instruction.
4. Plan, design, implement and monitor instruction, making effective use of instructional time to maximize learning opportunities and provide access to the curriculum for all students by removing barriers and providing access through instructional strategies that include:
  - appropriate use of instructional technology, including assistive technology;
  - applying principles of Universal Design for Learning (UDL) and Multi-Tier System Supports (MTSS);
  - use of developmentally, linguistically, and culturally appropriate learning activities, instructional materials, and resources for all students, including the full range of English learners;
  - appropriate modifications for students with disabilities in the general education classroom;
  - opportunities for students to support each other in learning; and
  - use of community resources and services as applicable.
5. Promote student success by providing opportunities for students to understand and advocate for strategies that meet their individual learning needs and assist students with specific learning needs to successfully participate in transition plans, e.g., Individual Education Plan (IEP), Individual Family Service Plan (IFSP), Individual Transition Plan (ITS), and 504 plans.
6. Access resources for planning and instruction, including the expertise of community and school colleagues through in-person or virtual collaboration, co-teaching, coaching, and/or networking.
7. Plan instruction that promotes a range of communication strategies and activity modes between teacher and student and among students that encourage student participation in learning.
8. Use digital tools and learning technologies across learning environments as appropriate to create new content and provide personalized and integrated technology-rich lessons to engage students in learning, promote digital literacy, and offer students multiple means to demonstrate their learning.

#### **TPE 5. Assessing Student Learning**

##### **Addressed Primarily in Rubric Design; Secondly in Online Problem-Solving Series**

1. Apply knowledge of the purposes, characteristics, and appropriate uses of different types of assessments (e.g., diagnostic, informal, formal, progress-monitoring, formative, summative, and performance) to design and administer classroom assessments, including use of scoring rubrics.
2. Collect and analyze assessment data from multiple measures and sources to plan and modify instruction and document students' learning over time.
3. Involve all students in self-assessment and reflection on their learning goals and progress and provide students with opportunities to revise or reframe their work based on assessment feedback.
4. Use technology as appropriate to support assessment administration, conduct data analysis, and communicate learning outcomes to students and families.
5. Use assessment information in a timely manner to assist students and families in understanding student progress in meeting learning goals.
6. Work with specialists to interpret assessment results from formative and summative assessments to distinguish between students whose first language is English, English learners, Standard English learners, and students with language or other disabilities.
7. Interpret English learners' assessment data to identify their level of academic proficiency in English as well as in their primary language, as applicable, and use this information in planning instruction.
8. Use assessment data, including information from students' Individual Education Plan (IEP), Individual Family Service Plan (IFSP), Individual Transition Plan (ITS), and 504 plans, to establish learning goals and to plan, differentiate, make accommodations and/or modify instruction.

#### **TPE 6: Developing as a Professional Educator**

##### **Addressed Primarily in Weekly Reflection and Online Discussion; Secondly in Virginia Hansen Symposium.**

1. Reflect on their own teaching practice and level of subject matter and pedagogical knowledge to plan and implement instruction that can improve student learning.
2. Recognize their own values and implicit and explicit biases, the ways in which these values and implicit and explicit biases may positively and negatively affect teaching and learning, and work to mitigate any negative impact on the teaching and learning of students. They exhibit positive dispositions of caring, support, acceptance, and fairness toward all students and families, as well as toward their colleagues.

3. Establish professional learning goals and make progress to improve their practice by routinely engaging in communication and inquiry with colleagues.
4. Demonstrate how and when to involve other adults and to communicate effectively with peers and colleagues, families, and members of the larger school community to support teacher and student learning.
5. Demonstrate professional responsibility for all aspects of student learning and classroom management, including responsibility for the learning outcomes of all students, along with appropriate concerns and policies regarding the privacy, health, and safety of students and families. Beginning teachers conduct themselves with integrity and model ethical conduct for themselves and others.
6. Understand and enact professional roles and responsibilities as mandated reporters and comply with all laws concerning professional responsibilities, professional conduct, and moral fitness, including the responsible use of social media and other digital platforms and
7. Critically analyze how the context, structure, and history of public education in California affects and influences state, district, and school governance as well as state and local education finance.

Beginning teachers engage students in the Standards for Mathematical Practice: 1) Make sense of problems and persevere in solving them; 2) Reason abstractly and quantitatively; 3) Construct viable arguments and critique the reasoning of others; 4) Model with mathematics; 5) Use appropriate tools strategically; 6) Attend to precision; 7) Look for and make use of structure; and 8) Look for and express regularity in repeated reasoning.

### **Teacher Performance Assessment**

Beginning July 1, 2008 all California credential candidates must successfully complete a state-approved Teacher Performance Assessment (TPA), as part of the credential program of preparation. During the 2017-18 academic year the CSUSM credential programs will use either the CalTPA (California Teacher Performance Assessment) or the edTPA (Educative Teacher Performance Assessment).

### **edTPA**

Beginning in fall 2015, for newly entering initial candidates, the CSUSM assessment system is the edTPA. To assist with your successful completion of the edTPA, a capstone class is part of your curriculum. In this class edTPA related questions and logistical concerns are addressed. Additional support materials are available on the edTPA website:

[http://www.edtpa.com/PageView.aspx?f=GEN\\_Candidates.html](http://www.edtpa.com/PageView.aspx?f=GEN_Candidates.html)

Additionally, to support your success in your credential program and with TPA, SOE classes use common pedagogical language, lesson plans (lesson designs), and unit plans (unit designs).

### **Assessment of Professional Dispositions**

Assessing a candidate's dispositions within a professional preparation program is recognition that teaching and working with learners of all ages requires not only specific content knowledge and pedagogical skills, but also positive attitudes about multiple dimensions of the profession. The School of Education has identified six dispositions – social justice and equity, collaboration, critical thinking, professional ethics, reflective teaching and learning, and life-long learning—and developed an assessment rubric. For each dispositional element, there are three levels of performance - *unacceptable*, *initial target*, *meet target*, and *advanced target*. The description and rubric for the four levels of performance offer measurable behaviors and examples.

The assessment is designed to provide candidates with ongoing feedback for their growth in professional dispositions and includes a self-assessment by the candidate. The dispositions and rubric are presented, explained and assessed in one or more designated courses in each program as well as in clinical practice. Based upon assessment feedback candidates will compose a reflection that becomes part of the candidate's Teaching Performance Expectation portfolio. Candidates are expected to meet the level of *initial target* during the program.

### **PROGRAM STUDENT LEARNING OUTCOMES (PSLOs)**

The PSLOs and the Course Learning Outcomes (p. 4) are based on the Teacher Performance Expectations:

TPE 1. Engaging and Supporting All Students in Learning

TPE 2. Creating and Maintaining Effective Environments for Student Learning

TPE 3. Understanding and Organizing Subject Matter for Student Learning

TPE 4. Planning Instruction and Designing Learning Experiences for All Students

TPE 5. Assessing Student Learning

TPE 6. Developing as a Professional Educator

TPEs in detail: <http://www.ctc.ca.gov/educator-prep/standards/adopted-TPEs-2016.pdf>



## SCHEDULE/COURSE OUTLINE

Date	Topic*	Assignment/Reading to be completed BEFORE class session	Reflection prompt
<u>Session 1</u> August 31 5:00-8:00	Course introduction Perceptions of mathematics teaching and learning	<ol style="list-style-type: none"> <li>1. Read the TPEs and develop a bulleted list of at least one thing you noticed and wondered from each TPE standard.</li> <li>2. Read NCTM Principles and standards:  <a href="https://www.nctm.org/uploadedFiles/Standards_and_Positions/PSSM_ExecutiveSummary.pdf">https://www.nctm.org/uploadedFiles/Standards_and_Positions/PSSM_ExecutiveSummary.pdf</a> </li> </ol>	Post a reflection to Edmodo on your experience in the math lesson during the first day of our class. Please include anything you noticed/wondered about in regard to -what I (the instructor) did. -your own learning experiences. -The components of the lesson. -How this experience related to other experiences you have had in math classes. -How this experience relates to the work you are doing in your clinical practice. -Anything else that struck you as interesting that you would like to share.
<u>Session 2</u> September 14 <sup>th</sup> 5:00 – 8:00	Choosing/designing rich mathematical tasks	<ol style="list-style-type: none"> <li>1. Read Stein, M. K., Smith, M. S., Henningsen, M. A., &amp; Silver, E. (2000). <i>Implementing standards-based mathematics instruction: A casebook for professional development</i>. New York, NY: Teacher's College Press. (Foreword, Introduction, and Analyzing Mathematics Tasks)</li> <li>2. Read Chapter 5 in Boaler, J. (2015). <i>Mathematical mindsets: Unleashing students' potential through creative math, inspiring messages and innovative teaching</i>, John Wiley &amp; Sons.</li> <li>3. <i>Read the CaCCSS-M, pp. ii-4, 57-60, &amp; 122-144</i></li> <li>4. Bring a mathematics task from a school math text book that you are currently using in your clinical practice.</li> </ol>	Post a reflection that includes a description of a moment of student thinking that you found interesting in your clinical practice and include reasoning for why you thought the student thinking was interesting. Then discuss aspects of the specific task the student was working on that might have contributed to making it possible for the students' mathematical thinking to become public.

<p><u>Session 3</u> September 21<sup>st</sup> 5:00 – 8:00</p>	<p>Preparing for task implementation: anticipating student thinking</p>	<ol style="list-style-type: none"> <li>1. Stein, M. K., et al. (2008). "Orchestrating productive mathematical discussions: Five practices for helping teachers move beyond show and tell." <u>Mathematical Thinking and Learning</u> <b>10</b>(4): 313-340.</li> <li>2. Read chapter 5 in: <i>Smith, M. &amp; Stein, M (2011). 5 practices for orchestrating productive mathematics discussions. Reston, VA : [Thousand Oaks, CA] :National Council of Teachers of Mathematics ; Corwin,</i></li> </ol>	<p>Reflect on a recent mathematical task used in your clinical practice. Characterize the task according to the Stein et al framework and then talk about what you noticed and wondered about as the students worked on the task. You might focus on things students did (e.g. their mathematics work), things students said (e.g. questions they asked or interesting ideas students had), something you or your cooperating teacher did (e.g. asked certain types of questions), or anything else you found interesting that you would like to share.</p>
<p><u>Session 4</u> October 12<sup>th</sup> 5:00 – 8:00</p>	<p>Task Implementation</p> <ul style="list-style-type: none"> <li>• Orchestrating mathematical discussions</li> <li>• Special populations</li> </ul>	<ol style="list-style-type: none"> <li>1. Stein, M. K., et al. (2008). "Orchestrating productive mathematical discussions: Five practices for helping teachers move beyond show and tell." <u>Mathematical Thinking and Learning</u> <b>10</b>(4): 313-340.</li> <li>2. Thompson, P.W. <a href="#">What makes a conversation conceptual?</a></li> <li>3. Jigsaw Representations: Cleaves (2008).</li> <li>4. Clay: How do I focus the conversation on the mathematics.</li> <li>5. <b>Virginia Hansen Symposium reflection.</b></li> </ol>	<p>Reflect on the types of questions you or your cooperating teacher asked students during a particular lesson. Were they yes/no questions? Did they "funnel" the students to an answer? Did they push students to think more deeply about important mathematics? Did you notice any patterns in the questions?</p>
<p><u>Session 5</u> October 25<sup>th</sup> 5:00-8:00</p>	<p>Learning from student work</p> <ul style="list-style-type: none"> <li>• Noticing and wondering</li> <li>• Sorting student work</li> </ul>	<ol style="list-style-type: none"> <li>1. Readings will be provided during session 4.</li> <li>2. Bring in sample student work from your clinical practice</li> <li>3. <b>ELD Infused lesson design and reflection</b></li> </ol>	<p>How did your/your cooperating teacher promote students in sharing their thinking? What were similarities or differences in student thinking? What was similar different in the students' responses to mathematical tasks? If you could replay that scenario, how would you organize students sharing of their work to the class (include reasoning for why).</p>

<p><u>Session 6</u> November 2<sup>nd</sup> 5:00-8:00</p>	<p>Assessment</p> <ul style="list-style-type: none"> <li>• Diagnostic</li> <li>• Formative</li> <li>• Summative</li> <li>• Revision</li> </ul>	<ol style="list-style-type: none"> <li>1. Read an article about assessment from this website: <a href="http://www.ct4me.net/assessment.htm">http://www.ct4me.net/assessment.htm</a></li> <li>2. Find and read a research article that discusses assessment. Be prepared to discuss how you could adapt the ideas discussed in the article into your own classroom practice.</li> </ol>	<p>Reflect upon your experience of making sense of your students' mathematical thinking while students work in groups. What are the similarities differences between the thinking of the different groups? Did students in the group share their thinking with the class? What did you notice about how students in the class responded when classmates shared their thinking? What were you or your cooperating teacher doing to orchestrate the discussion?</p>
<p><u>Session 7</u> November 16<sup>th</sup> 5:00-8:00</p>	<p>Lesson Analysis part a and b</p>	<ol style="list-style-type: none"> <li>1. Determine content standards from CaCCSM that you would like to design a lesson around.</li> <li>2. Choose a rich mathematical task that will address your content standards.</li> <li>3. Find a research article that discusses students' mathematical thinking in the content area you have identified for you lesson.</li> <li>4. <b>Rubric Design</b></li> </ol>	<p>What did you notice about your students' mathematical thinking? Were there any patterns in their thinking? What did you wonder about your students thinking? Did you find yourself wondering the same thing more than once? How could you use your noticing and wonderings to adjust your teaching during a particular lesson or maybe for the following lesson?</p>
<p><u>Session 8/9</u> December 2<sup>nd</sup> 9:00-3:00</p>	<p>Lesson analysis part c</p>	<ol style="list-style-type: none"> <li>1. Readings will be provided during session 7.</li> <li>2. A lesson plan for the <b>lesson analysis</b> assignment.</li> </ol>	<p>What did you notice about your students' mathematical thinking? Were there any patterns in their thinking? What did you wonder about your students thinking? Did you find yourself wondering the same thing more than once? How could you use your noticing and wonderings to adjust your teaching during a particular lesson or maybe for the following lesson?</p>

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Session 10  
December 7<sup>th</sup>  
5:00-8:00

Reflections on student teaching, online collaboration and classroom routines:

- Starting class,
- Ending Class
- Parents
- Homework
- Homework
- Parents

1. Readings will be provided during session 8/9.
2. Lesson analysis part d.

What did you notice about your students' mathematical thinking? Was there any patterns in their thinking? What did you wonder about your students thinking? Did you find yourself wondering the same thing more than once? How could you use your noticing and wonderings to adjust your teaching during a particular lesson or maybe for the following lesson?

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## COURSE REQUIREMENTS AND GRADED COURSE COMPONENTS

### Course Assignments

There are six graded assignments for EDSS 543. The total of the six assignments will be 100% of the student's grade for the course.

ELD Infused Lesson Design with Reflection	15%
Lesson Analysis	30%
Online Problem-Solving Series	15%
Weekly Reflection and Online Discussion	15%
Rubric Design	10%
Virginia Hansen Symposium	15%
<b>Total possible FOR EDSS 543A</b>	<b>100%</b>

1. *ELD Infused Lesson Design with Reflection* - In this assignment, you will design a content lesson that is based on a California State Standards and is differentiated for English Learners so as to ensure that your English Learner students have access to the core curriculum. You will determine a tool to measure growth, implement the lesson and reflect upon the work of your students. (The lesson is not limited to one class, it may span over a week.)

2. *Lesson Analysis* – You will develop a lesson based with the intent of gaining a deeper understanding of student thinking. In this lesson, you will have the opportunity to address the needs of ELL and Special Ed students in a cooperative learning environment. The sequence of the assignment will go as follows:

- I will teach a mathematics lesson to our class and then we will reflect upon and discuss the lesson.
- You will co-plan a lesson with me and you peers.
- You will teach the lesson to our class while being videotaped.
- You will write up a reflection on the lesson and then revise the lesson plan.

3. *Weekly Reflections And Online Discussion* - Regular reflection on your teaching and student learning is a critical part of being a good mathematics teacher. In order to promote reflective practice and collective analysis of mathematics teaching and learning, you will be required each week to post one reflection to the course discussion board where you describe one situation that corresponds to the topic in which we discussed that week in class. The reflection will be due each **Wednesday night before we have a scheduled class**. You will post your reflection to the class I created in Edmodo (a free educational technology for collaboration and building online communities of learners). Please try to keep your reflection to no more than one paged typed in a word document. You will also be required to respond to **at least two of your peers' post by the following Sunday night**. Just to be clear, if an initial post is due September 6<sup>th</sup>, the responses to your classmates' posts will be due September 10<sup>th</sup>.

4. *Online Problem-Solving Series* – I strongly believe that to be a good mathematics teacher you should be regularly doing mathematics. In particular, as a math teacher it is important to work on challenging problems that push you to engage in mathematical practices and develop content knowledge through building connections, identifying patterns, developing algorithms and generalizing your understandings. This provides you with opportunities to put yourself in your students' shoes and think like a learner. Therefore, as part of this course there will be an online problem-solving series, where you work on open-ended mathematics problems, post your solutions online and then provide your colleagues feedback with a software environment we have been designing and researching for the last 4+ years.

In order to work on the problems, you will have to purchase a PoW membership from the Math Forum. The Math Forum is an online community for mathematics education as well as a website that has resources and services for mathematics teachers (I encourage you to explore their website!). The service we will be using is called the Problem of the Week service (POWs).

To purchase a membership, go to <http://mathforum.org> and then select the “Buy Now” link in the middle of the page under the heading **Problems of the Week**. The next screen shows available products. We will be using the “Current PoW” membership (which is \$25) so select the orange box that says **Teacher** under the Current Pow heading. In the following screens complete your purchase.

See below for a breakdown of the assignments:

Week	Assignment	Due date	Points
1	Solve Problem 1 and submit your solution to the PoW system	Beginning of week 2	10
2	Use the EnCoMPASS Environment to provide feedback to two of your peers' work	Beginning of week 3	10
3	Use the folder feature to categorize your colleagues' work according to the strategy they used to solve as well as any other patterns you noticed.	Beginning of week 4	10
4	Reflect and discuss in class		
5	Solve Problem 2 and submit your solution to the PoW system	Beginning of week 6	10
6	Use the EnCoMPASS Environment to provide feedback to two of your peers' work	Beginning of week 7	10
7	Use the folder feature to categorize your colleagues' work according to the strategy they used to solve as well as any other patterns you noticed.	Beginning of week 8	10
8	Reflect and discuss in class		
9	Solve Problem 3 and submit your solution to the PoW system	Beginning of week 10	10
10	Use the EnCoMPASS Environment to provide feedback to two of your peers' work	Beginning of week 11	10
11	Use the folder feature to categorize your colleagues' work according to the strategy they used to solve as well as any other patterns you noticed.	Beginning of week 12	10
12	Reflect and discuss in class		
13	Solve Problem 4 and submit your solution to the PoW system	Beginning of week 14	10
14	Use the EnCoMPASS Environment to provide feedback to two of your peers' work	Beginning of week 15	10
15	Use the folder feature to categorize your colleagues' work according to the strategy they used to solve as well as any other patterns you noticed.	Beginning of week 16	10

NOTE: The online problem-solving work will be only graded on whether or not the work was completed. You will NOT be graded on the correctness of your work. Rather, the purpose is to develop a community that engages and enjoys doing math together.

5. Rubric Design – This assignment will include identifying a mathematical standard from CaCCSM, developing a task that would likely elicit student thinking around the content standard and then develop a rubric that you could use to assess the extent to which students are proficient in the particular content standard.

6. Attend the *Virginia Hansen Symposium* on October 7<sup>th</sup>. While there are a range of topics, this year the focus is mathematics. This year's topics feature 5 experts in the areas of Hands On Geometry Instruction, Native American Culture and culturally appropriate teaching practices, Creating Community

through Movement, Design Thinking applied to Literacy Instruction, and Coding in the Classroom for Teachers.

→ Prior to attending the symposium, you will be required to develop three “research question” that will guide your thinking while attending sessions at the symposium. You are encouraged to link these questions to current issues in your own classroom (such as those that you are documenting in the Weekly Reflection). Following the symposium, you will write a one page reflection for each of the questions you generated, which outlines what you learned from the symposium that could help you *develop as a professional educator*.

### **Grading Standards**

Below is the total number of points that each assignment is worth.

ELD Infused Lesson Design with Reflection	100 points
Lesson Analysis	100 points
Online Problem-Solving Series	120 points (see above for point distribution)
Weekly Reflection and Online Discussion	100 points (5 points for each reflection and 2.5 points for each required peer response.
Rubric Design	100 points
Virginia Hansen Symposium	100 points (120 points (see above for point distribution)

### **Final Exam Statement**

There will be no final exam.

### **School of Education/Course Attendance Policy**

Due to the dynamic and interactive nature of courses in the School of Education, all candidates (course participants) are expected to attend all classes and participate actively. At a minimum, candidates (course participants) must attend more than 80% of class time, or s/he may not receive a passing grade for the course at the discretion of the instructor. Individual instructors may adopt more stringent attendance requirements. Should the candidate (course participants) have extenuating circumstances, s/he should contact the instructor as soon as possible. (*Adopted by the COE Governance Community, December, 1997*).

Single Subject Courses: Attendance and promptness reflect the professional dispositional behaviors required and expected in the teaching profession. A minimum grade of C+ is required in all credential courses to earn the single subject credential. Absences and late arrivals/early departures will affect the final grade. **Teacher candidates may have one absence with no penalty. Second absence will result in a decrease of half-letter grade (5%).** Third absence will result in a decrease of a letter grade or more, a Statement of Concern and possible failure of class. Second tardy or early departure will receive a warning. **Third tardy or early departure will result in a decrease of a half-letter grade (5%) and a Statement of Concern.** Statement of Concern will require the candidate to write an action plan to resolve the issue. A total of three Statements of Concern on this and/or other issues combined warrant exit from the program.

No credit will be given if you miss an in-class assignment or required presentation. If extenuating circumstances occur, the teacher candidate should contact the instructor as soon as possible to make appropriate arrangements.

### **CSUSM Academic Honesty Policy**

Students will be expected to adhere to standards of academic honesty and integrity, as outlined in the Student Academic Honesty Policy. All assignments must be original work, clear and error-free. All ideas/material that are borrowed from other sources must have appropriate references to the original sources. Any quoted material should give credit to the source and be punctuated accordingly.

Academic Honesty and Integrity: Students are responsible for honest completion and representation of their work. Your course catalog details the ethical standards and penalties for infractions. There will be zero tolerance for infractions. If you believe there has been an infraction by someone in the class, please bring it to the instructor's attention. The instructor reserves the right to discipline any student for academic dishonesty, in accordance with the general rules and regulations of the university. Disciplinary action may include the lowering of grades and/or the assignment of a failing grade for an exam, assignment, or the class as a whole.

Incidents of Academic Dishonesty will be reported to the Dean of Students. Sanctions at the University level may include suspension or expulsion from the University.

Refer to the full Academic Honesty Policy at:

[http://www.csusm.edu/policies/active/documents/Academic\\_Honesty\\_Policy.html](http://www.csusm.edu/policies/active/documents/Academic_Honesty_Policy.html)

### **Plagiarism**

As an educator, it is expected that each candidate (course participant) will do his/her own work, and contribute equally to group projects and processes. Plagiarism or cheating is unacceptable under any circumstances. If you are in doubt about whether your work is paraphrased or plagiarized see the Plagiarism Prevention for Students website <http://library.csusm.edu/plagiarism/index.html>. If there are questions about academic honesty, please consult the University catalog.

### **Students with Disabilities Requiring Reasonable Accommodations**

Students with disabilities who require reasonable accommodations must be approved for services by providing appropriate and recent documentation to the Office of Disabled Student Services (DSS). This office is located in Craven Hall 4300, and can be contacted by phone at (760) 750-4905, or TTY (760) 750-4909. Students authorized by DSS to receive reasonable accommodations should meet with their instructor during office hours or, in order to ensure confidentiality, in a more private setting.

### **Credit Hour Policy Statement**

Per the University Credit Hour Policy:

- In this hybrid course, students will experience 30 hours of face to face time with the instructor. It is estimated that students will spend 30 hours working on the online asynchronous work (this includes the weekly reflection and online discussion + online problem-solving series). It is estimated that students will spend an additional 30 hours on assignments. This is a total of 90 hours.

### **All University Writing Requirement**

This course meets the All-University writing requirement as students will write at a minimum of 1700 words over the duration of EDSS 543A.

### **Course Format**

This is a hybrid (HY) course with online activities designed to engage students in professional and mathematical discourse with peers on a regular basis. Participating in the online activities in a timely manner is important as your peers' ability to complete assignments depends on your own completion of assignments. Therefore, completing online assignments late will receive no credit.

### **Necessary Technical Competency Required of Students**

Candidates are expected to demonstrate competency in the use of word processing, electronic mail, Moodle, use of the Internet, multimedia presentations and social media.

### **Contact Information for Technical Support Assistance**

CSUSM Help Desk, 2<sup>nd</sup> Floor of Kellogg Library, (760) 750-6505.



## **Electronic Communication Protocol**

Electronic correspondence is a part of your professional interactions. If you need to contact the instructor, e-mail is often the easiest way to do so. It is my intention to respond to all received e-mails in a timely manner. Please be reminded that e-mail and on-line discussions are a very specific form of communication, with their own nuances and etiquette. For instance, electronic messages sent in all upper case (or lower case) letters, major typos, or slang, often communicate more than the sender originally intended. With that said, please be mindful of all e-mail and on-line discussion messages you send to your colleagues, to faculty members in the School of Education, or to persons within the greater educational community. All electronic messages should be crafted with professionalism and care.

Things to consider:

- Would I say in person what this electronic message specifically says?
- How could this message be misconstrued?
- Does this message represent my highest self?
- Am I sending this electronic message to avoid a face-to-face conversation?

In addition, if there is ever a concern with an electronic message sent to you, please talk with the author in person in order to correct any confusion.