

E ED 565M: Mathematics Curriculum and Methods

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Michael D. Eisner College of Education Conceptual Framework

The faculty of the Michael D. Eisner College of Education, regionally focused and nationally recognized, is committed to **Excellence through Innovation**. We believe excellence includes the acquisition of professional knowledge, skills, and dispositions and is demonstrated by the growth and renewal of ethical and caring professionals—faculty, staff, candidates—and those they serve. Innovation occurs through collaborative partnerships among communities of diverse learners who engage in creative and reflective thinking. To this end we continually strive to achieve the following competencies and values that form the foundation of the Conceptual Framework.

1. We value academic **excellence** in the acquisition of professional knowledge and skills.
2. We value the use of **evidence** for the purposes of monitoring candidate growth, determining the impact of our programs, and informing ongoing program and unit renewal. To this end we foster a culture of evidence.
3. We value ethical practice and what it means to become **ethical and caring professionals**.
4. We value **collaborative partnerships** within the College of Education as well as across disciplines with other CSUN faculty, P – 12 faculty, and other members of regional and national educational and service communities.
5. We value diversity in styles of practice and are united in a dedication to acknowledging, learning about, and addressing the various strengths, interests, and needs of **communities of diverse learners**.
6. We value **creative and reflective thinking** and practice.

Course Description

This course addresses the skills and understandings that Multiple Subject Credential candidates and Education Specialist candidates need in order to effectively plan, implement, and evaluate instructional programs in mathematics using current state-adopted standards. Designed to provide models of effective instruction consistent with our current understanding of learning processes. Candidates learn to apply research-based instructional strategies that support and challenge all learners. Candidates develop skills for teaching children of diverse cultural and linguistic heritages, developmental levels, learning styles, and special populations to ensure equal access to rigorous mathematics curricula.

Course Objectives

Making Content Accessible

1. Understand the patterns of development of students' mathematical abilities and their implications to the design of a balanced and comprehensive K-8 mathematics curriculum.
2. Use varied instructional strategies and materials, e.g., discussion, manipulatives, physical models, graphical representations, media and technology, in a manner appropriate to the design of learning experiences that promote student motivation, computational skill, concept understanding, and problem solving abilities that address the CCSS-M.
3. Understand how to deliver a comprehensive program of rigorous instruction that includes reading, writing, speaking and listening to develop student skills in using academic language specific to mathematics and also to facilitate student interactions to develop communication skills in reasoning, constructing viable arguments, and critiquing the reasoning of others.
4. Design daily K-8 mathematics instruction that:
 - Is developmentally appropriate to make content accessible to all students
 - Explicitly communicates the purpose and objectives of lessons to students
 - Is relevant to students' needs and interests
 - Provides for the active and equal participation of all students

- Provides for sharing and evaluation of differing points of view
- Extends students' thinking through stimulating questions and challenging ideas
- Models the qualities of a secure mathematics learning environment
- Is differentiated relative to the needs of students with atypical development
- Extends concrete thinking and fosters abstract reasoning and problem-solving skills

Demonstrates Understanding of Appropriate Practice for English Language Learners

Apply pedagogical theories, principals and practices in promoting student development of mathematical academic language, comprehension, and knowledge. Candidates allow students to express mathematical meaning in a variety of ways, including in their first language, and make learning strategies explicit.

Instructional Time & Social Environment

5. Design instruction that demonstrates appropriate use of instructional time to maximize student learning, and that includes specific strategies for managing routine tasks and lesson transitions.
6. Create a positive climate for learning and a sense of community that promotes student effort by emphasizing collaborative activities and joint problem solving.

Specific Pedagogical Skills for Math Instruction

7. Facilitate the students' development of knowledge and skills to use problem solving, reasoning and proof, communication, representation, and connections in real-world situations.
8. Facilitate the application of adaptive reasoning, strategic competence, conceptual understanding, procedural fluency, and productive disposition.
9. Critically examine the state-adopted K-8 Common Core State Standards in light of children's natural development of mathematical skills, concepts, and reasoning.
10. Develop critical thinking in mathematics by following the Common Core Standards for Mathematical Practices. Develop an appreciation for mathematics as a mode of thinking and a strategy of inquiry and develop positive attitudes towards mathematics and teaching of mathematics. These specific pedagogical skills are to:
 - Promote positive classroom interaction, collaboration, and written and oral communication as students construct logical arguments and sound reasoning
 - Promote student curiosity, flexibility, and persistence in problem solving
 - Encourage multiple approaches to problem solving
 - Provide discussion of different problem solutions, making and testing conjectures.

Learning about Students

11. Identify and incorporate the elements and practices of a mathematics learning environment in planning the mathematics curriculum, that,
 - Establishes clear expectations for student behavior
 - Promotes intellectual risk-taking in a secure environment
 - Promotes positive attitudes towards mathematics
 - Promotes caring, respect, and fairness
 - Develops relevant, differentiated instruction based upon varied student needs, such as language, cultural backgrounds, exceptionalities, and developmental learning needs
 - Correlates learning experiences to students' cultural backgrounds, experience, and interests.

Instructional Planning

12. Demonstrate the ability to understand and teach the progression of the state-adopted K - 8 Common Core State Standards for Mathematics and strategically plan and schedule instruction to ensure that students meet or exceed the standards.
13. Identify the elements of a comprehensive instructional plan for K-8 mathematics instruction in accordance with state-adopted Common Core State Standards that:
 - Incorporates explicit models of instruction based on sound theory and research that is appropriate to the purpose and content of the lesson to help students meet or exceed grade level expectations
 - Uses the vertical alignment of mathematics curriculum to plan sequenced instruction
 - Includes varied measures for assessing student progress during instruction
 - Based on assessment data, classroom observation, and reflection, candidates identify students who need specialized instruction, including promising students and/or students with physical disabilities, learning disabilities, atypical development, or health conditions requiring instructional adaptations.

Monitoring Student Learning During Instruction

14. Demonstrate effective use of multiple measures for progress monitoring throughout mathematics instruction to determine whether all students, including English Learners and students with atypical development, are understanding content and making progress toward academic standards. Candidates anticipate, check for and address common misconceptions and identified misunderstandings and act upon this information during instruction.

Interpretation and Use of Assessments

15. Become familiar with a variety of formal and informal assessment strategies, as well as, formative and summative assessments, at varying levels of cognitive demand to determine students’ progress and plan instruction, e.g., pre-assessments, summative benchmark tests, diagnostic instruments, and performance-based exercises.
16. Know how to familiarize students with the format of the state-adopted assessment program and how to accurately interpret assessment results of individuals and groups in order to develop and modify instruction.
17. Understand how to modify assessment instruments appropriately.
18. Identify strategies and design activities to promote student self-assessment and goal setting in relation to their progress and achievement in the mathematics curriculum.

Developing as a Professional Educator

19. Evaluate their own mathematics content knowledge against the state-adopted Common Core State Standards and establish professional goals for increasing subject matter knowledge and teaching effectiveness.

Attendance and Participation

All students are expected to attend each class and participate actively. Participating actively is defined as being on time and ready to learn, taking an active role in discussions, and working well in collaborative groups. If you know ahead of time that you will miss class due to job-related events or religious observances, please email these dates during the first two weeks of class so that your absence may be excused. If you have extenuating circumstances, contact me as soon as possible and prior to class, if possible. Attendance will be taken at each class session. You have the possibility of earning 4 points each class toward your participation grade.

Participation Scale	Exhibits Participation Behaviors
4 points – student always:	<ul style="list-style-type: none"> • Maintains professional dispositions • Arrives on time • Contributes meaningfully to classroom discussions • Engages in classroom activities
3 points – student frequently:	
2 points – student sometimes:	
1 point – student never:	

Grading

Rubrics will be used in evaluating assignments submitted for this course.

The final grade will be determined on a percentage basis according to the following scale:

A	100-95%	B+	89-87%	C+	79-77%	D+	69-67%	
A-	94-90%	B	86-83%	C	76-73%	D	66-63%	F < 60%
		B-	82-80%	C-	72-70%	D-	62-60%	

Assignments	Scoring
Participation	60 points
Review of Technology	30
Lesson Plan	100
Assessment Plan	100
Chapter Reflections/Explorations (10 points each)	80
Activity Sharing (10 points each)	80
Total	450 Points

Late work: 10% will be deducted if the assignment is one week late. 20% will be deducted if the assignment is two weeks late. No late work will be accepted after two weeks unless extenuating circumstances apply. Alert me by email if you have extenuating circumstances.

Professional Dispositions

The Department of Elementary Education has adopted a process for ensuring that all CSUN students uphold standards of knowledge, performance, and professional dispositions recognized by the education profession. Obtain detailed information about the list of Qualities Important to Future Teachers and Educational Professionals, the involuntary delay/withdrawal process, the Concern form, and student appeals, at http://www.csun.edu/education/eed/delay_withdrawal/index.html

A list of dispositions that are important to future teachers and educational professionals is found below:

A. Personal qualities important to the teaching/education profession

Possesses integrity, accepts responsibility, is highly motivated, evidences high academic achievement, displays perseverance, takes initiative, exhibits self-control, shows maturity of judgment, is punctual and reliable, demonstrates warmth and advocacy for children, and presents a professional appearance and demeanor.

B. Qualities important to collaboration

Establishes rapport with others, assumes appropriate roles in the collaborative process, works well with others and communicates respectfully, demonstrates effective communication skills, values teamwork, demonstrates a respectful appreciation for diverse perspectives, demonstrates a commitment to achieving team goals, and seeks to develop and maintain professional workplace relationships.

C. Commitment to professional growth

Responds appropriately to supervision, reflects on/evaluates strengths and areas for improvement, accepts constructive criticism and suggestions, displays interest and curiosity in the learning process, uses suggestions to improve skills and understanding, values life-long learning, strives to achieve competence and integrity, and is a self-directed learner.

D. Commitment to diversity and social justice

Demonstrates cultural respect and understanding, believes in equal educational/vocational opportunity, displays sensitivity to ethnically, linguistically, cognitively, physically, socially diverse groups and individuals, advocates high and appropriate expectations for all students, and treats all people equally.

E. Commitment to ethical practices

Maintains confidentiality, displays ethical behavior, is honest and trustworthy, abides by legal mandates and ethical responsibilities, uses sound, informed judgment.

Textbooks

Van de Walle, John. A., Karp, K., & Bay-Williams, J. M. (2016). *Elementary and middle school mathematics: Teaching developmentally*. (9th ed.). Boston: Pearson AB.

California Department of Education (2012). *K – 12 California’s common core content standards for mathematics*. Sacramento, CA: Authors.

In August 2010, the California State Board of Education adopted the new Common Core Standards along with many other states. You can find these new 2013 adopted standards on the California Department of Education website under *Curriculum and Instruction*. The Common Core Standards can also be downloaded as a PDF file on the CDE website at www.cde.ca.gov/re/cc/

The pertinent standards for K – 5 can be found on pages 1-37 of this 153-page PDF file beginning with the Standards for Mathematical Practice. You will need the CA Common Core Mathematics Standards as you plan your math lesson.

Blackline Masters. To find the Van de Walle Blackline masters which appear at the end of the book in Appendix C (C3 – C11), Google “Blackline masters van de walle” and choose the “ablongman” site. A list of 78 blackline masters appears. Click on anyone of the worksheets to download the pdf and print. Many of these blackline masters can be used for the activities that we will share in class. (http://wps.ablongman.com/ab_vandewalle_math_6/0,12312,3547876-,00.html)

EdTPA (Performance Assessment for California Teachers)

The California Commission on Teacher Credentialing requires that every teacher candidate pass a performance assessment to earn a Multiple Subject credential. The edTPA Performance Assessment consists of four tasks. This course is designed to help you be successful in completing the Mathematics Assessment Task 4: Assessing Students’ Mathematics Learning. The assignments in this course will help you plan effective mathematics lessons and assess students’ mathematics learning. By developing formative and summative assessments, analyzing student work, and thinking about the next steps for students, you will be well prepared for the performance assessment in mathematics.

Under California law, you cannot earn a Multiple Subject credential until all components of the EdTPA Performance Based Assessment are passed.

Course Assignments

All major assignments completed for this course must be completed in a professional manner, i.e., typed, edited, free of mechanical and spelling errors, grammatically correct and submitted on time. Further, each assignment must meet all the requirements as delineated in the description of the assignment. An assignment will be considered late if it is not turned-in on the date it is due. Ten-percent of the total possible points for an assignment will be deducted for the first week that an assignment is late, twenty percent for the second week.

Readings

- The Van de Walle Text is an integral component of the course. As it is the finest mathematics methods text published today, I have assigned readings, reflective writing, and activities from the text that will prepare you to teach K – 6 mathematics in elementary schools.

Chapter Reflections **U 3.1, 6.5, DHH 3.2**

- The purpose of the Chapter Reflection writing assignments is to challenge you as a prospective or practicing teacher to confront your beliefs about teaching mathematics. Through your responses, we can begin to have a dialog about helping children to make sense of mathematics. Writing clarifies thought and acts as a catalyst for change.
- For Chapter Reflections you may
 1. Discuss your personal experience and compare it with the ideas in the chapter.
 2. Explore ideas in the chapter and write down questions you may have about them.
 3. Tell how exploring the ideas within the chapter helped your understanding of mathematics or mathematics teaching.

The questions at the end of each chapter in the *Writing To Learn* or *For Discussion and Exploration* sections may help you to formulate ideas and opinions for reflection, but you do not have to answer these questions from the text for your Chapter Reflection.
- The Chapter Reflections should be in writing and will be collected every week as assigned. The Reflections may hand-written or typed, keeping in mind that ideas and substance are more important than presentation. A hand-written paragraph or two with your ideas is quite acceptable for Chapter Reflections.

Math Journal Explorations **U 3.1, DHH 3.2**

- It is always a good idea to record your comments, questions, and ideas related to recent readings, class activities, or discussion in a personal notebook. You may use this notebook for explorations suggested in the chapter. (This is the place to solve problems presented in the text when completing assigned readings.) These notes are for your personal use and learning but should be brought to class each week. The Math Journals will not be collected but you will receive credit for completing the assigned explorations.

Review of Mathematics Resources and Technology

- After reading Chapter 7 *Technology and School Mathematics* in the Van de Walle text, describe three applets or teacher resources from the National Library for Virtual Manipulatives or the NCTM Illuminations website. Discuss the value of each applet in developing students' mathematical understanding. (Due Week 4.)

Activities

- Several times during the course you will be asked to prepare an activity from the chapter and share it with your group. Group members should communicate with each other before class so that duplication of activities does not occur. During the group sharing, you will:
 1. Name: Give the name of the activity
 2. Purpose: State the purpose of the activity. Provide a context for the activity so your group members can understand what students need to know before the activity.
 3. Explain: Give instructions for the activity. Tell what students, partners, and group members do. Tell what teachers do.
 4. Model the activity.
 5. Student Learning: What is the potential for student learning? What are some possible extensions for the activity? **U 4.5, 4.6**
- Activities cannot be turned in late or shared at a later date. If you are absent and do not know what activities to choose, use activities from the last fourth of the chapter.

- Some manipulatives are available in ED2107 for your use: unifix cubes, multilink cubes, base ten blocks, fraction circles, tangrams, Cuisenaire rods, geoboards, geometric solids
- U 1.1,

Smarter Balanced Practice Test

- Take one practice test for Grade 3, 4, or 5 by going to the website and signing in as a guest. Record your answers and thoughts about the assessment in your Math Journal. Find the practice test at <https://sbacpt.tds.airast.org/student/> or simply google “SBAC Practice Test”.
- If you are interested in the answers and how the new assessment system will score the test you may go to the webpage: <http://sbac.portal.airast.org/practice-test/resources/>

Mathematics Lesson & Assessment Plan

U 1.4, 1.5, 2.5, 2.6, 3.1, 3.2, 3.3, 3.4, 3.5, 3.6, 3.8, 4.1, 4.3, 4.4, DHH 1.6, 1.7, 3.2

The Mathematics Lesson & Assessment Plan is a major assignment for the course. You will be designing a mathematics lesson for teaching one elementary grade and an assessment that is integrated with your lesson. Your math lesson plan should be a problem-based lesson following the guidelines in Chapters 3, 4, and 5 of the Van de Walle text. The BEFORE-DURING-AFTER format will be used for the lesson. The plan must meet the appropriate criteria and any lesson plan that does not will be returned for revision. You will be working on this lesson plan throughout the course. The lesson plan will help you to be a reflective teacher.

The Assessment portion of the Lesson Plan will be a rehearsal for the EdTPA Teaching Event during your student teaching assignment. You will be learning how to integrate an assessment of children’s mathematical thinking into a lesson plan. Incorporating performance indicators and rubrics will help you to acquire the skills needed to assess students and analyze data to inform your practice. The Assessment Plan will be the Embedded Signature Assignment (ESA) for the EdTPA (Performance Assessment for California Teachers) credential requirements.

- Mathematics Lesson Plan (Due Week 9)
- Assessment Plan (Due Week 11) U 5.1, 5.2, 5.3, 5.4, 5.8, DHH 4.3, 5.3
- Revised Lesson and Assessment Plan (if revisions are necessary) (Due Week 14)

EED 565M Mathematics Methods

Week	Content U 3.1, DHH 3.2 (all weeks)	Assignments (Due following week)
Week 1 Aug 30	<ul style="list-style-type: none"> • Introduction to Teaching Mathematics Developmentally • Course Overview • Mathematics Reform • NCTM & CCSS Standards • Principles & Process Standards • What it Means to Do Mathematics <p>U 6.5</p>	<ol style="list-style-type: none"> 1. Read Van de Walle Chapters 1 & 2. 2. Chapter 1 Reflection 3. Bring your Math Journal with your work from Invitation to do Mathematics (Problems 1 – 4) to class.
Week 2 Sep 6	<ul style="list-style-type: none"> • Developing Understanding in Mathematics through Universal Design for Learning DHH 6.5 • Constructivism and Learning • Mathematical Knowledge • Learning Progressions • Teaching Developmentally DHH 1.3 • CCSS Mathematical Practices • In-class Problem Solving Task <p>U 1.1, 1.4, 3.4, 3.6, 4.1, 4.3, 4.4, DHH 3.5, 3.6</p>	<ol style="list-style-type: none"> 1. Read VdW Chapter 3 on Teaching Through Problem Solving & Chapter 4 on <i>Planning in Problem-Based Classroom from pg. 57 to 70.</i> 2. Do Chapter 3 Reflection. 3. Download the new CA Common Core Mathematics Standards (K – 5) for your use.

<p>Week 3 Sep 13</p>	<ul style="list-style-type: none"> • Teaching Through Problem Solving • Three Part Lesson Format • Designing Effective Tasks • Technology for the classroom, U 3.6, 3.8, 4.8 EX 3.1 • California Common Core Standards • Looking at Student Work • Talk Moves • In-class Problem Solving Task 	<ol style="list-style-type: none"> 1. Read Chapter 6: Teaching Mathematics Equitably to All Children 2. Chapter 6 Reflection. 3. Read pp. 130 – 135 and page 138 on calculators in Chapter 7 on Technology. 4. Complete <i>Review of Technology Assignment (typed)</i>. U 4.8
<p>Week 4 Sep 20</p>	<ul style="list-style-type: none"> • Teaching All Students Mathematics DHH 3.5, 3.6 • Diversity and Linguistically responsive instruction U 1.6, 1.8, 2.2, 3.5, 4.7, DHH 1.4 • Equity and Cultural Relevance DHH 1.6, 1.7, 2.5 • Learning Disabilities • Calculators in the Classroom • Choosing Activities • Making the Most of Story Problems U 1.1, 1.4, 2.3, 2.5, 2.6, 3.2, 4.5, 4.6 EX 3.3, 4.5 • <i>(Review of Technology Assignment Due)</i> 	<ol style="list-style-type: none"> 1. Read Chapter 8 Developing Early Number Sense & finish reading Chapter 4 on Planning (pp. 70 – 83). <ul style="list-style-type: none"> • Bring one Activity from Ch. 8 to share with your group. (See Activities 8.1 to 8.29) Be able to tell where your activity fits into children’s number development. U 1.6, 1.8, 2.2, 2.3, 2.5, 2.6, 3.5, 3.6, 3.8, 4.5, 4.6, 4.7 EX 3.3 DHH 1.3, 1.6, 1.7, DHH 3.5, 3.6 2. Download “Blackline Masters” and print any three examples to share.

Week	Content U 3.1, DHH 3.2 (all weeks)	Assignments (Due following week)
Week 5 Sep 27	<ul style="list-style-type: none"> • Developing Early Number Concepts and Number Sense • Planning in the Problem-Based Classroom • Principles of Mathematical Discourse • Drill or Practice? • Homework and Textbooks • Mathematics Lesson Plan • Common Core Assessments: SBAC Smarter Balanced Assessment Consortium 	<ol style="list-style-type: none"> 1. Read Chapters 9 Developing Meaning for Operations & Chapter 5 Creating Assessments for Learning. U 4.1, 4.3, 4.4 2. Be able to discuss at least four ways to conduct formative assessments from Chapter 5. 3. Take Smarter Balanced Practice Test for one grade (3 – 5). Record your answers and observations of the test in Math Journal. (Info on page 8.) 4. Bring one Activity from Chapter 9 to class. 5. Find a partner for the math lesson plan. U 1.4, 1.5, Ex 3.1, DHH 6.5
Week 6 Oct 4	<ul style="list-style-type: none"> • Developing Meaning for the Operations • Building Assessment into Instruction U5.1, 5.2, 5.3, 5.4, 5.8, DHH 4.3, 5.3 • Rubrics • Mathematics Lesson Plan U 3.3 • Explanation of EdTPA Embedded Signature Assignment (ESA) • Keyboard Symbols for Math 	<ol style="list-style-type: none"> 1. Read Chapter 10 (Developing Basic Fact Fluency) & Chapter 11 (Whole Number Place Value Concepts). 2. Bring one Activity from Ch. 10 to class. 3. Bring one Activity from Ch. 11 to class 4. Work on Math Lesson Plan. Bring to class 4 copies of the open-ended problem you plan to use. Note the Common Core Standard for the problem. U 3.2, 3.3
Week 7 Oct 11	<ul style="list-style-type: none"> • Whole Number Place Value Development • Place Value Concepts • Number Sense • Helping Children Master the Basic Facts 	<ol style="list-style-type: none"> 1. Read Chapter 12 on Addition and Subtraction & Chapter 13 on Multiplication and Division. 2. Bring one Activity from Chapter 12. 3. Bring Math Journal explorations: Do each Pause & Reflect in Chapters 12 & 13. Bring to class. 4. Work on Math Lesson Plan. U 3.2, 3.3

Week	Content U 3.1, DHH 3.2 (all weeks)	Assignments <i>(Due following week)</i>
Week 8 Oct 18	<ul style="list-style-type: none"> • Whole Number Computation • Invented Strategies <ul style="list-style-type: none"> ○ The Empty Number Line ○ Splitting and Recording ○ Sticks and Dots • Alternative Algorithms • Computational Estimation 	<ol style="list-style-type: none"> 1. Read Chapter 14 on Algebraic Thinking. 2. Read Chapter 23 (pp. 592 - 603) on Integer Models you can introduce in 4th grade. U 3.1, DHH 3.2 3. Bring Activity from Ch. 14. 4. Complete Lesson Plan. Be sure that you and your partner each have your own copy to turn in.
Week 9 Oct 25	<ul style="list-style-type: none"> • Algebraic Reasoning • Patterns • Growing Patterns • Integer Concepts • Signed Number Models <p>(Mathematics Lesson Plan Due)</p>	<ol style="list-style-type: none"> 1. Read Chapter 15: Developing Fraction Concepts 2. Bring Math Journal explorations: Do each Pause & Reflect in Chapter 15. U 3.1, DHH 3.2 3. Work on Assessment Plan. U 4.1, 4.3, 4.4, 5.1, 5.2, 5.3, 5.4, 5.8 EX 4.5, DHH 4.3, 5.3
Week 10 Nov 1	<ul style="list-style-type: none"> • Developing Fraction Concepts • Fraction Number Sense • Models for Fractions • Integrating Assessment into Lesson Plan – Aligning with Common Core Standards for Mathematical Practices 	<ol style="list-style-type: none"> 1. Read Chapter 16: Developing Fraction Operations 2. Bring Math Journal explorations: Do each Pause & Reflect in Chapter 16. Be able to explain Partition and Measurement concepts for division of fractions. U 3.1, DHH 3.2 3. Complete Assessment Plan. Be sure that you and your partner each have your own copy to turn in.
Week 11 Nov 8	<ul style="list-style-type: none"> • Computing with Fractions • Informal exploration with fractions • Developing algorithms for fractions • Multiplication of fractions <ul style="list-style-type: none"> • Array, Area, Partial Products • Division of fractions <ul style="list-style-type: none"> ▪ Partition and Measurement • Fractions Progressions and Student work • EdTPA Teaching Event 4: Assessment Checklist <p>(Assessment Plan Due)</p>	<ol style="list-style-type: none"> 1. Read Chapter 19 on Measurement Concepts. <ul style="list-style-type: none"> • Bring Activity from Chapter 19. U 1.4, 1.5

Week	Content	Assignments <i>(Due following week)</i>
Week 12 Nov 15	<ul style="list-style-type: none"> • Developing Measurement Concepts • Examine Content Standards • Tools of Measurement • Conceptual Understanding of Measurement • Estimation of measurements • Area and Volume relationships • Time and Money 	<ol style="list-style-type: none"> 1. Read Chapter 20: Geometric Thinking 2. Bring one Activity from Ch. 20 to class. 3. Complete Revisions of Mathematics Lesson and Assessment Plans, if necessary.
Week 13 Nov 22	Thanksgiving Holiday – No Class Meeting	
Week 14 Nov 29	<ul style="list-style-type: none"> • Geometric Thinking • Van Hiele Levels • Spatial sense • Learning in Centers • Cooperative Spatial Problem Solving • EdTPA Teaching Event Task 4: Self-Assessment on Rubrics <p>(Revision of Mathematics Lesson and Assessment Plan due)</p>	<p>In your math journal, write 3 to 5 sentences describing the thinking behind your mathematics instruction. Describe how you see your role as a teacher and what you envision “doing mathematics” in your classroom will look like, sound like, and feel like.</p> <p>U 6.5</p> <p>Then, relax. You have worked hard during the semester.</p>
Week 15 Dec 6	<ul style="list-style-type: none"> • Wrap-Up • Review of Course • Lesson Plan Sharing/Small Group Presentation/ • Evaluation • Return Lesson Plan Revisions 	Enjoy the break!
Finals Week	No Class Meeting during finals week.	

Universal	DHH	ECSE	MMSN	EXSN
TPE1-Universal: 1.1-pg 7 1.4-pg 7 1.6-pg 8 1.8-pg 8	TPE1-DHH: 1.3-pg 7 1.4-pg 8 1.6-pg 8 1.7-pg 8	TPE1-ECSE: --	TPE1-MMSN: --	TPE1-EXSN: --
TPE2-Universal: 2.2-pg 8 2.3-pg 8 2.5-pg 8 2.6-pg 8	TPE2-DHH: 2.5-pg 8	TPE2-ECSE: --	TPE2- MMSN: --	TPE2- EXSN: --
TPE3-Universal: 3.1-pg 7 3.2-pg 8 3.3-pg 9 3.4-pg 7 3.5-pg 8 3.6-pg 7 3.8-pg 8	TPE3-DHH: 3.2-pg 9 3.5-pg 7 3.6-pg 7	TPE3-ECSE: --	TPE3- MMSN: --	TPE3- EXSN: 3.1-pg 8
TPE4-Universal: 4.1-pg 7 4.3-pg 7 4.4-pg 7 4.5-pg 8 4.6-pg 8 4.7-pg 8 4.8-pg 8	TPE4-DHH: 4.3-pg 9	TPE4-ECSE: --	TPE4- MMSN: --	TPE4- EXSN: 4.5-pg 8
TPE5-Universal: 5.1-pg 9 5.2-pg 9 5.3-pg 9 5.4-pg 9 5.8-pg 9	TPE5-DHH: 5.3-pg 9	TPE5-ECSE: --	TPE5- MMSN: --	TPE5- EXSN: --
TPE6-Universal: --	TPE6-DHH: 6.5-pg 7	TPE6-ECSE: --	TPE6- MMSN: --	TPE6- EXSN: --

