



THE UNIVERSITY OF TEXAS AT EL PASO
College of Education- Department of Teacher Education

Title of Course: ELED 4310 (16631) Teaching Mathematics in the Elementary Schools	Credits: 3
Semester: Spring 2020	Instructor Information: Professor: Dr. David J. Carrejo, Ph.D. Office: College of Education, EDUC 802 Phone: 747-5856 E-mail: dcarrejo@utep.edu (best means of contact) Office Hours: T 9:30 a.m. – 11:30 a.m., R 9:30 a.m. – 11:30 a.m., or by appointment
Class meeting time: W 12:00 p.m. – 2:50 p.m. Class meeting place: Purple Heart Elementary School, Room 223	

Course Description: Students enrolled in this course will explore the methods of teaching mathematics in elementary grades. Emphasis is placed on the equity principle (mathematics for all) and development of conceptual understanding of topics such as real numbers and operations on real numbers, quantitative reasoning, geometry, and early algebra. Students will reflect upon their own experiences and beliefs about mathematics. The course looks at mathematics as a discipline, and compares more traditional ideas about what it means to ‘know’ and ‘do’ mathematics to the vision of mathematics advocated by the reform movements as well as what it means to ‘know’ and ‘do’ mathematics relying on constructivist principles of learning and teaching.

Course Objectives: Upon completion of the course, students will be better prepared to:

- Identify what makes a ‘good mathematical task’, and how a meaningful task supports student learning
- How children can make sense of several key mathematics concepts
- How tools (including manipulatives and technology) assist children in their thinking and problem solving
- Identify their role as teacher in a math classroom
- Plan and implement mathematics lessons based upon constructivist principles of learning and teaching
- Adjust lessons and instruction based on what they learn from their students

This syllabus is subject to change as needed. Any changes to the syllabus will be announced in class.

STUDENT LEARNING OUTCOMES

TEXAS TEACHING STANDARDS [SBEC] ELED 4310 students will be able to:	COURSE SPECIFIC STANDARDS ELED 4310 students will be able to:	Measurements (means of assessment)
<p>Standard I. Number Concepts: The mathematics teacher understands and uses numbers, number systems and their structure, operations and algorithms, quantitative reasoning, and technology appropriate to teach the statewide curriculum (Texas Essential Knowledge and Skills [TEKS]) in order to prepare students to use mathematics.</p>	<p>Know and understand the connections of operations, algorithms, and relations with their associated concrete and visual representations and how number concepts, operations, and algorithms are developmental and connected across grade levels.</p>	<p>Homework assignments Reflections Quizzes</p>
<p>Standard II. Patterns and Algebra: The mathematics teacher understands and uses patterns, relations, functions, algebraic reasoning, analysis, and technology appropriate to teach the statewide curriculum (Texas Essential Knowledge and Skills [TEKS]) in order to prepare students to use mathematics.</p>	<p>Know and understand how to use algebraic concepts and reasoning to investigate patterns, make generalizations, formulate mathematical models (graphic, numeric, and symbolic representations), make predictions, and validate results.</p>	<p>Homework assignments Reflections Quizzes</p>
<p>Standard III. Geometry and Measurement: The mathematics teacher understands and uses geometry, spatial reasoning, measurement concepts and principles, and technology appropriate to teach the statewide curriculum (Texas Essential Knowledge and Skills [TEKS]) in order to prepare students to use mathematics.</p>	<p>Know and understand how to use spatial reasoning to investigate concepts such as direction, orientation, perspective, shape, and structure, and how to make connections among geometric ideas and number concepts, measurement, probability and statistics, and algebra.</p>	<p>Homework assignments Reflections Quizzes</p>
<p>Standard IV. Probability and Statistics: The mathematics teacher understands and uses probability and statistics, their applications, and technology appropriate to teach the statewide curriculum (Texas Essential Knowledge and Skills [TEKS]) in order to prepare students to use mathematics.</p>	<p>Know and understand how to use graphical and numerical techniques to explore data, characterize patterns, and describe departures from patterns and how to design experiments and surveys to answer questions and solve problems.</p>	<p>Homework assignments Reflections Quizzes</p>
<p>Standard VII. Mathematical Learning and Instruction: The mathematics teacher understands how children learn and develop mathematical skills, procedures, and concepts, knows typical errors students make, and uses this knowledge to plan, organize, and implement instruction; to meet curriculum goals; and to teach all students to understand and use mathematics.</p>	<p>Apply theories and principles of learning mathematics to plan and implement developmentally appropriate and effective instructional activities for all students</p>	<p>Lesson implementation and evaluation Reflections</p>
<p>Standard VIII. Mathematical Assessment: The mathematics teacher understands assessment and uses a variety of formal and informal assessment techniques appropriate to the learner on an ongoing basis to monitor and guide instruction and to evaluate and report student progress.</p>	<p>Select or design and administer a variety of appropriate assessment instruments and/or methods (e.g., formal/informal, formative/summative) to monitor student understanding of mathematics and progress over time</p>	<p>Lesson implementation and evaluation Reflections</p>

Required Text & Readings:

- Van de Walle, J. A., Karp, K.S., Lovin, L.H., & Bay-Williams, J.M. (2018). [*Teaching Student-Centered Mathematics: Developmentally Appropriate Instruction for Grades 3-5 \(Volume II\), 3rd Edition*](#). Boston, MA: Pearson.
- *Geogebra: Dynamic Software for Everyone [Classic 5.0]*. Available: www.geogebra.org. [This is FREE, open-source software for both Mac and Windows platforms.](#)
- Other necessary handouts and/or readings will be passed out in class. **ALL COURSE HANDOUTS WILL BE MADE AVAILABLE ON Blackboard (through my.utep.edu). You MUST have a valid UTEP login and password to access my.utep.edu, Blackboard, and many other relevant UTEP websites.** A UTEP e-mail address is required for all e-correspondence and more effective communication.

Recommended Resources for Elementary School Mathematics:

- [Annenberg Media](#)
- Assessment in Mathematics:
 - [Measuring What Counts: A Conceptual Guide for Mathematics Assessment](#)
 - [Mathematics Assessment Project - Assessing 21st Century Math](#)
- [Early Algebra](#)
- [National Library of Virtual Manipulatives](#)
- [NCTM Illuminations](#)
- [NCTM Principles and Standards for School Mathematics](#)
- [Science NetLinks](#)
- [State of Texas Assessments of Academic Readiness \(STAAR™\) Resources](#)
- [Texas Educator Standards](#)
- [TEKS for Mathematics](#)

Inclusiveness and equity: Learning happens only when we feel respected as a whole human being. My top priority in our classroom is to cultivate relationships of trust and respect and a sense that we see each other as whole, complex human beings. That you experience this in our classroom is important for the sake of your learning in our course *and* for the sake of your future students' learning, so that you feel able to cultivate such relationships with them. To that end, I want you to know that all of you is welcome in our classroom space—all the parts of you as a person are welcome in our discussions, our activities, our assignments, and in our assessments. We are all complex people with a variety of perspectives, experiences, challenges, assets, and resources—our gender identities, our sexual orientations, our religions, our races, our ethnicities, our economic statuses, our immigration statuses, our parenthoods, our veteran statuses, our ages, our languages, our abilities and disabilities. All the parts of you are welcome in our learning community to the extent that you feel comfortable bringing them in. I strive to show respect for the variety and wholeness in each of you, and I expect that each of you shows respect for each other as well. If you feel marginalized in our class, and you feel comfortable discussing it, I would like to know so that I can support you, protect you, and make changes that feel more inclusive and equitable. You can also talk with our Department Chair and/or you can report a complaint of discrimination to the University's Equal Opportunity Office, Kelly Hall, Third Floor, 915-747-5662 or eoaa@utep.edu.

Standards of academic integrity: Students are expected to uphold the highest standards of academic integrity. Any form of scholastic dishonesty is an affront to the pursuit of knowledge and jeopardizes the quality of the degree awarded to all graduates of UTEP. Any student who commits an act of scholastic dishonesty is subject to discipline. Scholastic dishonesty includes, but is not limited to cheating, plagiarism, collusion, the submission for credit of any work or materials that are not attributable in whole or in part to another person, taking an examination for another person, any act designed to give unfair advantage to a student or the attempt to commit such acts. Proven violations of the detailed regulations, as printed in the Handbook of Operating Procedures (HOP) and available in the Office of the Dean of Students, may result in sanctions ranging from disciplinary probation, to failing grades on the work in question, to failing grades in the course, to suspension or dismissal among others.

Students with Disabilities statement: If you have or believe you have a disability, you may wish to self-identify. You can do so by providing documentation to the Center for Accommodations and Support Services (CASS) located in Union E Room 106. Students who have been designated as having a disability must reactivate their standing with CASS on a yearly basis. Failure to report to this office will place a student on the inactive list and nullify benefits received. If you have a condition which may affect your ability to exit safely from the premises in an emergency or which may cause an emergency during class, you are encouraged to discuss this in confidence with the instructor and/or the director of CASS. You may call 915-747-5148 for general information about the Americans with Disabilities Act (ADA).

Evaluation & Coursework Requirements of Students:

Coursework Requirements		Points	How Grades are Determined	
Class Attendance and Participation		20	Grade	Percentage (%)
Homework assignments – 4 x 20 pts		80	A	90 -100
Complete 2 hours of CT classroom observation/notes		15	B	80- 89.9
Complete 8 hours of peer observation		15	C	70- 79.9
Final Reflective Observation Paper (Summative)		20	D	60- 69.9
Final Project: Lesson Planning and Implementation		30	F	Below 60
Final Lesson Planning and Implementation reflection		20		
	TOTAL	200		

Course Assignments

1. Observations

During our face-to-face meetings, you will be required to complete a minimum of 3 hours of observation in a classroom (focusing primarily on mathematics instruction, but it can include other instruction as well). At the beginning of the semester you will be assigned a cooperating teacher to accomplish this assignment. You will maintain a log of the hours served, and you will maintain observation notes. Both will be turned in at the end of the semester together with a 2-page summative reflection of your observations in the classroom.

2. Homework assignments

There will be short homework assignments, primarily skills-based, throughout the semester. They will be posted on Blackboard and due on specified dates. The homework assignments will reflect not only the appropriate mathematics content for grades EC - 6 but also the content you should expect to see on your certification test.

3. Lesson Planning and Implementation Project (2 parts)

Part I: Design and teach a lesson: Working in pairs, you will be required to create a lesson plan for a given topic that meets the following criteria: 1) it is appropriate for grades EC – 5; 2) it is aligned with the Purple Heart ES Instructional Focus Documents (IFD) for mathematics; and 3) it is aligned with STAAR objectives as well as TEKS standards. You will then implement your lesson in a teaching activity to a group of Purple Heart elementary students during our regularly scheduled class period and your lesson will be video recorded. Topics will be approved and finalized by your cooperating teacher. Your assigned grade level and cooperating teacher will be finalized by me and Purple Heart’s instructional leader. You will receive constructive feedback in the form of written analysis from me. You will also be observed by your peers.

Part II: Reflect on your lesson implementation: Working individually and analyzing your video-recorded lesson, you will write a Lesson Planning and Implementation Reflection. **Final goals, guidelines, and rubric for this assignment are provided in this syllabus and will also be available on Blackboard.**

ACTIVE LEARNING LESSON PLANNING & IMPLEMENTATION (VIDEO-RECORDING)

The primary goals of this assignment are to demonstrate your understanding of:

- How students learn and develop (provide learning opportunities that support a student's intellectual, social, and personal development)
- How students differ in their approaches to learning (create instructional opportunities that are adapted to students with diverse backgrounds and exceptionalities)
- How to use a variety of instructional strategies to encourage student development of critical thinking, problem solving, & performance skills, including integration of the English Language Proficiency (ELP) standards and strategies which address the needs of English Learners (EL)
- Individual & group motivation & behavior (create learning environments that encourage positive social interaction, active engagement in learning, & self-motivation)
- How to plan and manage instruction based upon knowledge of subject matter, students, the community, and curriculum goals
- How to use formal and informal assessment strategies to evaluate and ensure the continuous intellectual, social, and physical development of the student.

Guidelines for Lesson Planning & Implementation Reflection: Analyze the effectiveness of your lesson plan and your implementation. Use the following to guide you in developing this analysis. Your final reflection paper must be at least 2 pages in length.

1. After teaching the lesson, **watch the video of you implementing your lesson**. Analyze and take notes on the following questions:
 - a. How did I plan and teach the lesson so that the students were able to achieve the objectives of the lesson?
 - b. How did I assess my students' achievement of the task and language objectives in the lesson (these could be informal - such as "name two things we learned.")?
 - c. Were the steps to the lesson and instructions (a) clear in my plan (b) clear to the students when I explained these to them?
 - d. How did I integrate and address the needs of English Learners (EL) in the classroom?
 - e. How did I manage the students? How did the lesson plan motivate the students?
 - f. How did I do? How can I further improve my lesson/instruction?

Write a reflection paper (**giving specific examples from your lesson plan and/or video analysis**), reflecting in depth as you ask yourself the following more in-depth questions. **Note: You do not have to have succeeded in achieving all of these areas in your planning and teaching.** However, what is important for you to be successful in this assignment is for you to (a) recognize where you are in your progress towards mastery of these and (b) explain where and how you still need to improve.

- a. How did I plan for and provide learning opportunities that supported the students' intellectual, social, and personal development?
- b. How did I create instructional opportunities that are adapted to students with diverse backgrounds and exceptionalities?
- c. How did I plan and use a variety of instructional strategies to encourage student development of critical thinking, problem solving, & performance skills for all students?
- d. How did I plan and create a learning environment that encourage positive social interaction, active engagement in learning, & self-motivation?
- e. How did I plan and manage instruction based upon knowledge of subject matter, students, the community, and curriculum goals?
- f. To what extent did my plan and my teaching reflect my ability to use formal and informal assessment strategies to evaluate and ensure the continuous intellectual, social, and physical, language development of the student?

ACTIVE LEARNING LESSON PLAN GUIDE

The lesson plan should be typed and roughly 2-3 pages long. Design a lesson that will build on and extend students' understanding of a chosen math topic in some meaningful way. Your students need to be actively thinking during your lesson. You should strive to keep students mentally active. Teach *through* problem solving/inquiry. Refer to your Van De Walle textbook or any other resource(s) as needed. Your lesson plan should be something that is useful to you as you teach the lesson. It should include information that helps others understand your thinking behind your planning. The plan should include at least the following:

- **Title/Topic**
- **Grade level**
- **Goals and objectives** of your lesson: Be as specific as possible. Include the specific ideas and processes you hope to help your students develop and/or understand.
- **TEKS Standards:** Provide specific, standard expectations for teaching the selected concept/procedures for selected grade level.
- **Instructional Sequence:** Outline the learning plan (teaching & learning activities). This plan should be aligned clearly with the desired results (i.e., geared towards having students meet the objectives, answer the essential questions, and be able to complete the assessment activities). The plan should include the following components:
 - **List of instructional materials & resources:** Include a variety of resources that you used in preparing the lesson (e.g., similar lesson plans that you found on the Internet, information from cooperating teacher, textbook, etc.).
 - **Timeline:** Next to each step, indicate approximate length of time you expect each step to take.
 - **Introductory activities:** Hook/capture (engage) student interest; setting up the task; relate to previous learning (review) and how this aligns with what is to follow; tell students what they will learn and be expected to do as a result of the lesson.
 - **Developmental activities:** Outline the content and outline the instructional strategies & learning activities. Include details what you will do, how you will organize/prepare students for tasks, and what students will do. For example, if you plan to involve students in discussion, list key/stem questions that you might ask to generate discussion.
 - **Closing activities:** List activities that you & students will do to summarize the lesson, reinforce what was covered, and tie everything together so students see how the lesson fits into the context of what they have already done and what is coming next.
 - **Assessment techniques:** Describe what you will do during the lesson to assess student understanding. Describe what you will do with the materials produced (e.g., will you mark questions as you walk around, will you collect journals and write comments, will you evaluate group presentations with a rubric?) Attach copies of any written assessments (tests, rubrics, observational checklists, format for anecdotal records).

Along with the lesson plan, you should also attach all handouts you would provide students.

RUBRIC FOR ACTIVE LEARNING LESSON PLAN

Category	Exceeds Standard (5 pts)	Meets Standard (3 – 4 pts)	Does Not Meet Standard (0 – 2 pts)
Structure	Lesson Plan format is concise addressing universal design and makes connections to student needs. Included are the elements of Active Learning, Inquiry-based, TPACK, with differentiation that addresses prior knowledge, real world connections, identified (data-driven) student strengths and knowledge gaps.	Lesson Plan format is somewhat concise addressing some of the following areas: universal design and makes connections to student needs. Included are some of the elements of Active Learning, Inquiry-based, TPACK, with differentiation that addresses prior knowledge, real world connections, identified (data driven) student strengths and knowledge gaps.	Lesson Plan format is disorganized and does not include components addressing universal design and making connections to student needs. The elements of Active Learning, Inquiry-based, TPACK, with differentiation that addresses prior knowledge, real world connections, identified (data driven) student strengths and knowledge gaps are not included.
Content	Texas Essential Knowledge and Skills and Learning objective are stated and addressed in the lesson structure. Active, constructive learning is promoted through discovery, critical-creative thinking and challenging expectations. Error Analysis and self-reflection are promoted resulting in student learning goal setting.	Texas Essential Knowledge and Skills and Learning objective are somewhat stated and addressed in the lesson structure. Active, constructive learning is primarily promoted through discovery, critical-creative thinking and challenging expectations. Error Analysis and self-reflection are somewhat promoted resulting in student learning goal setting.	Texas Essential Knowledge and Skills and Learning objective are not stated and addressed in the lesson structure. Active, constructive learning is not promoted through discovery, critical-creative thinking and challenging expectations. Error Analysis and self-reflection are not promoted and does not result in student learning goal setting.
Lesson Delivery Strategies	Strategies for lesson delivery include interactive, hands-on approaches and differentiated instruction to address individual student needs and learning styles. Formative evaluation is integrated to insure content mastery (evidence based). Lesson delivery is literacy-based and provides opportunities for engagement through cross-curricular connections, and integration of varied tools and technology.	Strategies for lesson delivery somewhat includes interactive, hands-on approaches and differentiated instruction to address individual student needs and learning styles. Formative evaluation is somewhat integrated to insure content mastery (evidence based). Lesson delivery is somewhat literacy-based and provides some opportunities for engagement through cross-curricular connections and has some integration of varied tools and technology.	Strategies for lesson delivery does not include interactive, hands-on approaches and differentiated instruction to address individual student needs and learning styles. Formative evaluation is not integrated to insure content mastery (evidence based). Lesson delivery is not literacy-based and does not provide opportunities for engagement through cross-curricular connections and does not have integration of varied tools and technology.

RUBRIC FOR ACTIVE LEARNING LESSON IMPLEMENTATION

Category	Exceeds Standard (5 pts)	Meets Standard (3 – 4 pts)	Does Not Meet Standard (0 – 2 pts)
<p style="text-align: center;"><i>Content Knowledge Expertise and Achieving Expectations</i></p>	<p>Solid teacher knowledge of Texas Essential Knowledge and Skills and learning objectives is present. Teacher and student understanding of the topic are visibly demonstrated. Active, constructive learning is promoted through discovery, critical-creative thinking and challenging expectations. Through cross-curricular and real world connections, the teacher has addressed academic, social and emotional expectations.</p>	<p>Developing teacher knowledge of Texas Essential Knowledge and Skills and learning objectives is present. Teacher and student understanding of the topic are somewhat visibly demonstrated. Active, constructive learning is somewhat promoted through discovery, critical-creative thinking and challenging expectations. Through cross-curricular and real world connections, the teacher has somewhat addressed academic, social and emotional expectations.</p>	<p>Weak teacher knowledge of Texas Essential Knowledge and Skills and learning objectives is present. Teacher and student understanding of the topic are visibly weak. Active, constructive learning is not promoted through discovery, critical-creative thinking and challenging expectations. The teacher has not addressed academic, social and emotional expectations through cross-curricular and real world connections,</p>
<p style="text-align: center;"><i>Critical Thinking and Argumentation</i></p>	<p>Effective Questioning focused on encouraging student active learning through discovery and critical-creative thinking based on Bloom’s Revised Taxonomy. Visual and auditory evidence that students are challenged is present. Error analysis and self-reflection are promoted resulting in visible student learning goal setting, as well as addressing gaps in content mastery.</p>	<p>Effective Questioning generally focused on encouraging student active learning through discovery and critical-creative thinking based on Bloom’s Revised Taxonomy. Visual and auditory evidence that students are somewhat challenged is generally present. Error analysis and self-reflection are somewhat promoted resulting in visible student learning goal setting, as well as somewhat addressing gaps in content mastery.</p>	<p>Effective Questioning did not focus on encouraging student active learning through discovery and critical-creative thinking based on Bloom’s Revised Taxonomy. Visual and auditory evidence that students are challenged is not present. Error analysis and self-reflection are not promoted resulting in visible student learning goal setting, as well as gaps in content mastery were not addressed.</p>
<p style="text-align: center;"><i>Lesson Delivery</i></p>	<p>The lesson is well organized, literacy-based, and the purpose of the lesson is clear from the beginning, and the lesson objectives are clear and understandable. Individual student needs and learning styles are addressed through universal design integrating Active Learning, Inquiry-based structure, TPACK, with differentiation that addresses prior knowledge, real world connections, identified (data-driven) student strengths and knowledge gaps.</p>	<p>The lesson is basically organized, literacy-based, and the purpose of the lesson becomes clear within the lesson, and the lesson objectives are clear and understandable, but some important points are not addressed. Individual student needs and learning styles are somewhat addressed through universal design integrating Active Learning, Inquiry-based structure, TPACK, with differentiation that somewhat addresses prior knowledge, real world connections, identified (data-driven) student strengths and knowledge gaps.</p>	<p>The lesson is not organized, literacy-based, and the purpose of the lesson is unclear from the beginning, and the lesson objectives are not clear and understandable throughout the lesson. Individual student needs and learning styles are not addressed through universal design integrating Active Learning, Inquiry-based structure, TPACK, with differentiation that did not address prior knowledge, real world connections, identified (data-driven) student strengths and knowledge gaps.</p>

RUBRIC FOR LESSON PLANNING & IMPLEMENTATION REFLECTION

Criteria/Standard	4 - Exceeds expectations	3 - Meets Expectations	2 - Emergent	1 - Meets Minimum Expectations
<i>Depth of Reflection</i>	Response demonstrates an in-depth reflection on, and personalization of, the theories, concepts, and/or strategies presented in the lesson plan and implementation.	Response demonstrates a general reflection on, and personalization of, the theories, concepts, and/or strategies presented in the lesson plan and implementation.	Response demonstrates a minimal reflection on, and personalization of, the theories, concepts, and/or strategies presented in the lesson plan and implementation.	Response demonstrates a lack of reflection on, or personalization of, the theories, concepts, and/or strategies presented in the lesson plan and implementation.
<i>Viewpoints</i>	Viewpoints and interpretations are insightful and well supported. Clear, detailed examples are provided, as applicable.	Viewpoints and interpretations are supported. Appropriate examples are provided, as applicable	Viewpoints and interpretations are unsupported or supported with flawed arguments. Examples, when applicable, are not provided or are irrelevant to the assignment.	Viewpoints and interpretations are missing, inappropriate, and/or unsupported. Examples, when applicable, are not provided.
<i>Evidence and Practice</i>	Essay shows strong evidence of synthesis of ideas presented and insights gained in this assignment. The implications of these insights for the respondent's overall teaching practice are thoroughly detailed.	Essay shows evidence of synthesis of ideas presented and insights gained in this assignment. The implications of these insights for the respondent's overall teaching practice are presented.	Essay shows little evidence of synthesis of ideas presented and insights gained in this assignment. Few implications of these insights for the respondent's overall teaching practice are presented.	Essay shows no evidence of synthesis of ideas presented and insights gained in this assignment. No implications for the respondent's overall teaching practice are presented.
<i>Self-Evaluations</i>	Self-evaluation shows personal development related to goals set for this assignment.	Self-evaluation shows assessment of progress connected goals set for this assignment.	Self-evaluation shows evidence of assessment of progress connected goals set for this assignment. However, they are not specific	Self-evaluation is generalized, superficial and not connected to goals set for this assignment.
<i>Mechanics</i>	Writing is clear, concise, and well organized with excellent sentence/paragraph construction. Thoughts are expressed in a coherent and logical manner. There are no more than three spelling, grammar, or syntax errors per page of writing.	Writing is mostly clear, concise, and well organized with good sentence/paragraph construction. Thoughts are expressed in a coherent and logical manner. There are no more than five spelling, grammar, or syntax errors per page of writing.	Writing is unclear and/or disorganized. Thoughts are not expressed in a logical manner. There are more than five spelling, grammar, or syntax errors per page of writing.	Writing is unclear and disorganized. Thoughts ramble and make little sense. There are numerous spelling, grammar, or syntax errors throughout the response.

Course Requirements

- **Attendance and Participation:** It is expected that students will attend all classes and actively participate in working on projects and class discussions. Students are expected to prepare for each class session. Lateness to class is strongly discouraged. With the emphasis on collegiality it is important that all group members be in class to contribute to the group's effort in developing an understanding of what it means to teach mathematics effectively. There will be a student sign-in sheet at the beginning of each class. If a student misses a session, it is the responsibility of the student for knowing and completing all work required. Each attendance will count towards the final grade. Two tardies (including early leaves) will count as one absence. More than two absences may result in a student earning one-letter grade lower in the course.
- **Due dates:** Assignments are due on the specified dates. Late assignments will not be accepted. Type or word-process written assignments. All assignments should be double spaced with a 12-point font. Number your pages.
- **Calendar changes:** The schedule of topics and reading assignments may change over the course of the semester. Any changes to the syllabus will be announced in class. Every student is responsible for these changes whether or not the student is present in class.

Class Schedule: Please note that the schedule below is subject to change

Date	Chapter/Topic*	Assignment
January 22	Welcome/Introduction to the course Chapter 1 – Setting a Vision for Learning High-Quality Mathematics Chapter 2 – Teaching Mathematics Through Problem Solving	
January 29	Chapter 8 – Exploring Number and Operation Sense Chapter 10 – Developing Whole-Number Place Value Concepts Chapter 11 – Building Strategies for Whole-Number Computation	
February 5	Chapter 12 – Exploring Fraction Concepts Chapter 13 – Developing Strategies for Fraction Computation Chapter 14 – Developing Decimal and Percent Concepts and Decimal Computation	Homework 1 due
February 12	NO CLASS MEETING -- OBSERVATION 1	
February 19	Chapter 16 – Building Measurement Concepts Chapter 17 – Developing Geometric Thinking and Concepts	
February 26	Chapter 15 – Promoting Algebraic Thinking	Homework 2 due
March 4	NO CLASS MEETING -- OBSERVATION 2	
March 11	INTERSESSION AT SISD: On this date, we will meet at UTEP, College of Education, room 405 Chapter 15 – Promoting Algebraic Thinking GeoGebra in the math classroom	Homework 3 due
March 18	SPRING BREAK – NO CLASS	
March 25	Lesson Implementation (Peer Observations)	
April 1	Lesson Implementation (Peer Observations)	
April 8	Chapter 18 – Representing and Interpreting Data	Homework 4 due
April 15	Lesson Implementation (Peer Observations)	
April 22	Lesson Implementation (Peer Observations)	
April 29	Lesson Implementation (Peer Observations)	
May 6	Final thoughts – Last Day of Class	Observation logs and notes due
May 13	EXAM WEEK (NO CLASS MEETING)	Observation reflection due Lesson reflection due