

UNIVERSITY OF ARKANSAS at MONTICELLO
SCHOOL OF EDUCATION
EDUC 4023 TEACHING MATHEMATICS COURSE SYLLABUS

Course Title: EDUC 4023 Teaching Mathematics

Credit Hours: 3

Instructor:

Office Hours:

PREREQUISITE

Admission to Clinical Internship I

MATH 1003 Survey of Mathematics (Grade of C or better)

MATH 1043 College Algebra (Grade of C or better)

MAED 2243 Fundamentals of Geometric Concepts (Grade of C or better)

MAED 3553 Number Systems (Grade of C or better)

REQUIRED TEXTS

Mathematics for Elementary Teachers: A Contemporary Approach. Gary L. Musser, Blake E. Peterson, William F. Burger. ISBN #978-1118457443

Putting the Practices into Action: Implementing the Common Core Standards for Mathematical Practice K-8. Susan O'Connell, John SanGiovanni. ISBN #978-0-325-04655-6

REQUIRED SUPPLEMENTAL MATERIALS

Math Common Core State Standards (<http://www.corestandards.org/Math>)

Chalk and Wire Subscription (UAM Bookstore)

COURSE DESCRIPTION

This course is a study of materials, methods, and classroom procedures as they relate to teaching mathematics in the K-6 elementary classroom. Candidates learn to effectively plan, teach, modify and systematically reflect upon mathematics instruction. Candidates learn to create a positive and supportive environment that meet the needs of diverse student populations and involves families and communities in student learning. Candidates will also learn to integrate instructional technology and to properly use formative and summative assessments to plan, assess and design instruction. This course is taught concurrently with Clinical Internship I. Specific assignments will be completed during this 15-week experience.

MISSION STATEMENT

The University of Arkansas at Monticello School of Education is committed to the development of highly qualified candidates. The School of Education embraces the responsibility to prepare candidates to live and work in a rapidly changing, diverse world. Candidates are challenged to achieve the highest level of proficiencies defined in the UAM School of Education's Conceptual Framework and as modeled by the UAM School of Education Faculty. The Conceptual Framework is comprised of five strands: knowledge, pedagogy, diversity, professionalism and technology. The candidates' understanding of the Conceptual Framework is progressively developed as they advance through the professional education programs. The UAM School of Education is dedicated to developing highly qualified professional educators as identified by the State of Arkansas and by the "No Child Left Behind" Act of 2001 through a partnership with the

Southeast Educational Cooperative, area public schools, the university community, and supportive agencies in Arkansas's high-need geographical areas.

CONCEPTUAL FRAMEWORK

The Conceptual Framework of the School of Education is organized around five strands that promote the following: the acquisition of a knowledge base; development of pedagogical skills; promotion of diversity and social justice; the demonstration of professionalism, and technology skills. The core belief through all strands is that the diverse population of P-12 students can learn. This philosophy is shared by faculty and candidates alike and is infused throughout the curriculum and practice of faculty and candidates. The proficiencies identified either by indicators or standards within each strand define the performance of initial and advanced candidates in the undergraduate and graduate education programs.

GOALS AND OBJECTIVES AND CORRELATED STANDARDS

Candidates will demonstrate that they know, understand, and can use the major concepts and procedures that define number and operations, algebra, geometry, measurement, and data analysis and probability. (ACEI 2.3; ATS 4, 5, 8; CF: Knowledge, Pedagogy)

Candidates will demonstrate that they can consistently engage student's problem solving, reasoning and proof, communication, connections, and representation; (ACEI 2.3, 3.2; ATS 5, 7, 8; CF: Knowledge, Pedagogy, Diversity)

Candidates will demonstrate the ability to know, understand, and use a wide array of effective content specific instructional approaches, strategies, and tools to positively influence student development and learning. (ACEI 2.3, 3.1, 3.2, 3.3, 3.4; ATS 1, 2, 3, 5, 7, 8; CF: Knowledge, Pedagogy, Diversity)

Candidates will demonstrate the appropriate use of concrete mathematic manipulative materials in the classroom. (ACEI 2.3; ATS 1, 2, 3, 5, 7, 8; CF: Knowledge, Pedagogy, Diversity)

Candidates demonstrate the ability to communicate mathematics through reading, writing, listening and discussing. (ACEI 2.3; ATS 7, 8; CF: Knowledge, Pedagogy)

Candidates plan and implement instruction based on knowledge of students, learning theory, connections across the curriculum, curricular goals, and community. (ACEI 2.1 3.1, 3.2, 3.3; ATS 5, 6, 7, 8; CF: Knowledge, Pedagogy, Diversity)

Candidates use their knowledge and understanding of effective verbal, nonverbal, and media communication techniques to foster active inquiry, collaboration, and supportive interaction in the elementary classroom. (ACEI 2.3, 3.5; ATS 2, 3, 8 10; CF: Knowledge, Pedagogy, Diversity, Technology)

Candidates will demonstrate to plan and use formative, interim, and summative assessment in planning and teaching mathematics content. (ACEI 2.3 4.0; ATS 6, 7, 8; CF: Knowledge, Pedagogy, Diversity, Technology)

Candidates use their knowledge and understanding of individual and group motivation and behavior among students at the K-6 level to foster active engagement in learning, self-motivation, and positive social interaction and to create supportive learning environments. (ACEI 3.4; ATS 1, 2, 3; CF: Knowledge, Pedagogy, Diversity, Technology)

Candidates will demonstrate the ability to integrate their understanding of and relationships with children and families; their understanding of developmentally effective approaches to teaching and learning; and

their knowledge of academic disciplines to design, implement, and evaluate experiences that promote positive development and learning for all students. (ACEI 1.0, 3.2, 3.3; ATS 7, 8, 9; CF: Knowledge, Pedagogy, Diversity)

Candidates will demonstrate the ability to understand the importance of each content area in student learning. They will demonstrate the ability to know the essential concepts, inquiry tools, and structure of content areas including academic subjects and can identify resources to deepen student understanding. (ACEI 1.0, 3.2, 3.3; ATS 7, 8; CF: Knowledge, Pedagogy, Diversity)

Candidates will demonstrate the ability to plan mathematics instruction based on state competencies, knowledge of the teaching/learning process, content knowledge, student ability and differences, and the community. (ACEI 1.0, 2.3, 3.1, 3.2, 3, 3, 3.4, 3.5, 4.0; ATS 1, 2, 3, 4, 5, 6, 7, 8, 9,10; CF Knowledge, Pedagogy, Diversity, Technology, Professionalism)

METHODS OF INSTRUCTION

The method of instruction will be lecture, cooperative/collaborative learning, presentations, observations, demonstrations, reflective teaching, recitation, discussions, research and use of technology.

COURSE REQUIREMENTS

Signature Assessment Field Experience: Candidate Developed Assessment/ Pre and Post Test and Data Analysis; ACEI Standard(s) 2.3, 4.0 (Required for Course Completion):

Candidates will develop and teach a math lesson, which will include a pre- and post-test assessment instrument. The candidate will collect and aggregate data, which they will analyze to determine the impact on student learning. Candidates will share the analysis in a multimedia class presentation. Additionally, candidates will videotape and self-assess the lesson using the TCRI/TESS rubric. Based on the self-assessment, each candidate will develop a personal growth plan to identify areas for improvement. (This is not to be one of the formal observations of the cooperating teachers or university supervisors.)

A. Part A: Planning, Teaching, and Assessing (100 Points)

- a. Develop a mathematics lesson plan/mini-lesson teach for a specific grade-level (15-30 minute)
- b. Develop an appropriate Pre-Test to assess the student's prior knowledge
- c. Develop an appropriate Post-Test to assess the students learning based on the standards, goals, and objectives taught in the lesson
- d. Submit the Pre-Test, Post-Test, and Lesson Plan to Instructor for feedback.
- e. Administer the Pre-Test to determine prior knowledge
- f. Utilize the data from the Pre-Test to modify the lesson plan
- g. Video tape the teaching of the 15-30 minute lesson
- h. Administer the Post-Test for student learning
- i. Analyze the assessment data to assist in determining student growth, student needs, and remediation if needed.

B. Part B: Reflection and Personal Growth (100 points)

- a. Review the TCRI/TESS form in preparation of self-assessing the video from the lesson taught.
- b. Review the video and script notes/evidence on the TCRI/TESS form.

- c. Analyze the scripted notes/evidence to create a SWOT Analysis (Strengths, Weaknesses, Opportunities for Growth, and Threats to Effectiveness)
 - d. From your analysis, create a Personal Growth Plan (PGP) to identify areas of improvement.
 - e. Submit the video, scripted TCRI/TESS form, SWOT Analysis, and the Personal Growth Plan in Chalk and Wire.
- C. Part C: Reflective Presentation (100 points)
- a. Create a reflective multimedia presentation on the process of
 - i. Developing a lesson plan
 - ii. Developing the Pre-Test
 - iii. Developing the Post-Test
 - iv. Modifying a lesson plan based on student's prior knowledge
 - v. Teaching of the lesson
 - vi. Analysis of the assessment data
 - vii. Utilizing the SWOT analysis process
 - viii. Creation of the Personal Growth Plan
 - b. Utilize the Reflective Question Guide in the preparation of this presentation.
 - c. Submit the multimedia presentation to the Instructor through Blackboard and in Chalk and Wire
- D. Part D: Present the multimedia presentation as the final for this course (100 points)

Blackboard Assignments (50 points each): This course is divided into modules. Throughout each module, there will be assignments to support the learning and mastery of the content.

Discussion Board Assignments (15 points each): Throughout this course, you will participate in Discussion Boards. The topics for each discussion board are different. You will either be watching a video, reading, an article, or reviewing a Web site in preparation for sharing your thoughts on the discussion board topic. You will have to post your initial thoughts and respond to classmates according to the Discussion Board Scoring Rubrics.

SIGNATURE ASSESSMENT FIELD EXPERIENCE (*Required for course completion*)

Candidates will develop and teach a math lesson, which will include a pre- and post-test assessment instrument. The candidate will collect and aggregate data, which they will analyze to determine the impact on student learning. Candidates will share the analysis in a multimedia class presentation. Additionally, candidates will videotape and self-assess the lesson using the TCRI/TESS rubric. Based on the self-assessment, each candidate will develop a personal growth plan to identify areas for improvement.

UAM GRADE POLICY

UAM will no longer mail grade reports to all students. You may access your grades through Campus Connect on the UAM homepage, <http://www.uamont.edu>. To have your grades mailed to you, complete the grade request form available in the Registrar's Office in Monticello or the Student Services offices in Crossett and McGehee.

GRADE ASSIGNMENT

Grading Scale:

A= 90—100

B= 80—89

C= 70—79

D= 60--69

F= 59 and below

ATTENDANCE POLICY

Regular and punctual attendance is required in class and any required field experiences. Candidates must attend class to receive maximum benefit of learning. As future teachers, candidates are expected to maintain a professional demeanor at all times. Attendance will be recorded at the beginning of the class. It is important that students arrive on time to class. Late work will not be accepted without penalty. Makeup work will not be allowed unless documentation concerning the reason for the absence is provided.

STUDENTS WITH DISABILITIES

It is the policy of the University of Arkansas at Monticello to accommodate individuals with disabilities pursuant to federal law and the University's commitment to equal educational opportunities. It is the responsibility of the student to inform the instructor of any necessary accommodations at the beginning of the course. Any student requiring accommodations should contact the Office of Special Student Services located in Harris Hall Room 120; phone 870 460-1026; TDD 870 460-1626; Fax 870 460-1926

STUDENT CONDUCT STATEMENT

Students at the University of Arkansas at Monticello are expected to conduct themselves appropriately, keeping in mind that they are subject to the laws of the community and standards of society. They must not conduct themselves in a manner that disrupts the academic community or breaches the freedom of other students to progress academically.

Cell Phone Usage Policy

The School of Education seeks to promote a teaching and learning environment free from classroom disruptions. The following policy is intended to define acceptable classroom behavior with regard to cell phones, pagers, MP3 players, and similar electronic devices in order to preserve academic integrity and ensure that candidates have optimum environmental conditions for effective learning.

As a member of the learning community, each candidate has a responsibility to other candidates who are members of the community. The School of Education prohibits the use by candidates of cell phones, pagers, MP3 players, or similar electronic devices during scheduled classes. All such devices must be turned off or put in a silent mode and cannot be visible during class. At the discretion of the instructor, exception to this policy is possible in special circumstances. Cell phones may not be answered or utilized for text messages, instant messages, games, Facebook, Myspace, and other uses in a classroom. All MP3 players must be turned off prior to entering the classroom. Both ear buds and/or earphones must be removed from ears. If you decide to ignore the policy, you will be asked to leave and may be counted absent.

In testing situations, use of cell phones or similar communication devices may lead also to a charge of academic dishonesty and additional sanctions under the Academic Dishonesty Policy.

USE OF TECHNOLOGY

Candidates will word-process all papers and class assignments. Candidates are responsible for obtaining an e-mail address at the Information Technology Center. Candidates will conduct internet research concerning class topics. Candidates will develop multi-media presentations using a variety of instructional resources.

DIVERSITY

Candidates will be provided opportunities through direct instruction and field experiences to gain the knowledge, skills, and dispositions to provide effective instruction in diverse classroom and communities. A wide variety of instructional methods will be modeled during the course to meet the needs of a diverse class. In addition, candidates will design curriculum (including goals, methods, and assessments) suitable for a wide range of students.

ACADEMIC DISHONESTY

1. Cheating: Students shall not give, receive, offer, or solicit information on examinations, quizzes, etc. This includes but is not limited to the following classes of dishonesty:
 - a. Copying from another student's paper.
 - b. Use during the examination of prepared materials, notes, or texts other than those specifically permitted by the instructor.
 - c. Collaboration with another student during the examination.
 - d. Buying, selling, stealing, soliciting, or transmitting an examination or any material purported to be the unreleased contents of coming examinations or the use of any such material.
 - e. Substituting for another person during an examination or allowing such substitutions for oneself.
2. Collusion: Collusion is defined as obtaining from another party, without specific approval in advance by the instructor, assistance in the production of work offered for credit, to the extent that the work reflects the ideas of the party consulted rather than those of the person whose name is on the work submitted.
3. Duplicity: To offer for credit identical or substantially unchanged work in two or more courses, without specific advanced approval of the instructors involved.
4. Plagiarism: To adopt and reproduce as one's own, to appropriate to one's use, and to incorporate in one's own work without acknowledgement the ideas or passages from the writings or works of others.

For any instance of academic dishonesty that is discovered by the instructor, whether the dishonesty is found to be cheating, collusion, duplicity, or plagiarism, the result for the student or students involved will be that the instructor will assign a grade of F for the examination or assignment involved.

COURSE OUTLINE/CALENDAR

<p>Module 1 (approximately 2 weeks)</p>	<p><u>Module Content</u> Pre-assessment of candidate math content knowledge</p> <p>Mathematical Practices & Basic Understandings</p> <ul style="list-style-type: none">• Reading and Understanding the Math Common Core State Standards• 8 Mathematical Practices• Understanding the use of Formative Assessment in Math Instruction• Professional Noticing (Article)• Vocabulary• Writing in Math (Disciplinary Literacy) <p><u>Instructional Strategy Ideas:</u> (Examples the Instructor can utilize throughout the module)</p> <ul style="list-style-type: none">• Graphic Organizers• Gallery Walks• Note-Taking• Note-booking• Questioning• Manipulatives• Video observations with annotating• Cooperative Learning <p><u>Formative Assessment Ideas:</u> (Examples the Instructor can utilize throughout the module)</p> <ul style="list-style-type: none">• Exit Slips• Discussion Boards• Bell-Work• Entry Slips• Reflections• Probes of Thinking (Uncovering Student Thinking in Mathematics book) <p><u>Activity Ideas:</u> Examples of in class activities that could be incorporated</p> <ul style="list-style-type: none">• Use of manipulatives• Video observations of math practices• Productive struggle activities• Facilitating math discussions in the classroom• Dissecting the standards and vocabulary <p><u>Assignment Ideas:</u> Examples of class assignments that could be utilized</p> <ul style="list-style-type: none">• Professional Noticing• What is my role as a teacher with the 8 Mathematical Practices?• Reflective Feedback• Visual representation of the 8 Mathematical Practices (small groups)
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	<ul style="list-style-type: none"> Utilize premade worksheets or textbook examples to see if the worksheet or particular textbook assignment assists with students mastering the content <p><u>Online Assignment (Discussion Board):</u></p> <ul style="list-style-type: none"> <i>Putting the Practices Into Action:</i> Introduction and Chapter I Review of Guiding Questions (p. 148) [Choose 1-2 questions from this page to utilize as the Discussion Board topic each week of the module.]
<p>Module 2 (approximately 3 weeks)</p>	<p><u>Module Content</u></p> <p>Basic Math Understanding</p> <ul style="list-style-type: none"> Understanding children’s thinking about mathematics (addition, subtraction, multiplication, division) Understanding properties Understanding properties of operations Understanding basic number systems (base ten) Vocabulary Integrating measurement and geometry Reinforcing Professional Noticing Reinforcing 8 Mathematical Practices <p><u>Instructional Strategy Ideas:</u> (Examples the Instructor can utilize throughout the module)</p> <ul style="list-style-type: none"> Graphic Organizers Gallery Walks Note-Taking Note-booking Questioning Manipulatives Video observations with annotating Cooperative Learning <p><u>Formative Assessment Ideas:</u> (Examples the Instructor can utilize throughout the module)</p> <ul style="list-style-type: none"> Exit Slips Discussion Boards Bell-Work Entry Slips Reflections Probes of Thinking (Uncovering Student Thinking in Mathematics book) <p><u>Activity Ideas:</u> Examples of in class activities that could be incorporated</p> <ul style="list-style-type: none"> Use of manipulatives Working with problem types Video observations with annotating/reflection (virtually or physically visiting classrooms)

	<ul style="list-style-type: none"> • Backward mapping of Common Core Standards (assign a specific standard and have the students look at different grade level standards to assist with students knowing and understanding the vertical alignment of the standards) <p><u>Assignment Ideas:</u> Examples of class assignments that could be utilized</p> <ul style="list-style-type: none"> • Reflection notebook: Reflect on the internship classroom noticing the 8 Mathematical Practices daily • Choose multiple standards and write a mini-lesson/activity to support the teaching of this module in the public school classroom • Give the candidate math problems and then have them identify where students might struggle • Utilize premade worksheets or textbook examples to see if the worksheet or particular textbook assignment assists with students mastering the content <p><u>Online Assignment (Discussion Board):</u></p> <ul style="list-style-type: none"> • <i>Putting the Practices Into Action:</i> Chapter 2, 3, and 4- Review of Guiding Questions (p. 148-150) [Choose 1-2 questions from this page to utilize as the Discussion Board topic each week of the module.] <p><u>Signature Assessment Part A:</u> Planning, Teaching, and Assessing (Lesson must be taught during the candidates first placement of the internship)</p>
<p>Module 3 (approximately 3 weeks)</p>	<p><u>Module Content</u> Algebraic Thinking, Expressions, and Equations</p> <ul style="list-style-type: none"> • Equality • Equal sign symbol • Open number sentences and true/false statements • Understanding of basic concepts of number theory • Understanding basic algebraic methods and representations • Understands equations and inequalities • Reinforcing properties of operation • Vocabulary • Integrating measurement and geometry • Reinforcing Professional Noticing • Reinforcing 8 Mathematical Practices <p><u>Instructional Strategy Ideas:</u> (Examples the Instructor can utilize throughout the module)</p> <ul style="list-style-type: none"> • Graphic Organizers • Gallery Walks • Note-Taking • Note-booking • Questioning • Manipulatives

	<ul style="list-style-type: none"> • Video observations with annotating • Cooperative Learning <p><u>Formative Assessment Ideas:</u> (Examples the Instructor can utilize throughout the module)</p> <ul style="list-style-type: none"> • Exit Slips • Discussion Boards • Bell-Work • Entry Slips • Reflections • Probes of Thinking (Uncovering Student Thinking in Mathematics book) <p><u>Activity Ideas:</u> Examples of in class activities that could be incorporated</p> <ul style="list-style-type: none"> • Use of manipulatives • Video observations with annotating/reflection (virtually or physically visiting classrooms) • Utilizing materials from the Algebraic Thinking workshop • Backward mapping of Common Core Standards (assign a specific standard and have the students look at different grade level standards to assist with students knowing and understanding the vertical alignment of the standards) <p><u>Assignment Ideas:</u> Examples of class assignments that could be utilized</p> <ul style="list-style-type: none"> • Reflection notebook: Reflect on the internship classroom noticing the 8 Mathematical Practices daily • Choose multiple standards and write a mini-lesson/activity to support the teaching of this module in the public school classroom • Give the candidate math problems and then have them identify where students might struggle • Utilize premade worksheets or textbook examples to see if the worksheet or particular textbook assignment assists with students mastering the content <p><u>Online Assignment (Discussion Board):</u></p> <ul style="list-style-type: none"> • <i>Putting the Practices Into Action:</i> Chapter 5, 6, and 7 - Review of Guiding Questions (p. 150-151) [Choose 1-2 questions from this page to utilize as the Discussion Board topic each week of the module.] <p><u>Signature Assessment Part B:</u> Reflection and Personal Growth</p>
<p>Module 4 (approximately 3 weeks)</p>	<p><u>Module Content</u></p> <p>Number Operations – Fractions, Ratios & Proportional Relationships</p> <ul style="list-style-type: none"> • Properties of Operations – Fractions • Understanding the why of fractions • Discovering of fraction rules • Visual representation of fractions

- Fraction Island
- Using base ten blocks
- Vocabulary
- Integrating measurement and geometry
- Reinforcing Professional Noticing
- Reinforcing 8 Mathematical Practices

Instructional Strategy Ideas: (Examples the Instructor can utilize throughout the module)

- Graphic Organizers
- Gallery Walks
- Note-Taking
- Note-booking
- Questioning
- Manipulatives
- Video observations with annotating
- Cooperative Learning

Formative Assessment Ideas: (Examples the Instructor can utilize throughout the module)

- Exit Slips
- Discussion Boards
- Bell-Work
- Entry Slips
- Reflections
- Probes of Thinking (Uncovering Student Thinking in Mathematics book)

Activity Ideas: Examples of in class activities that could be incorporated

- Video observations with annotating/reflection (virtually or physically visiting classrooms)
- Backward mapping of Common Core Standards (assign a specific standard and have the students look at different grade level standards to assist with students knowing and understanding the vertical alignment of the standards)
- Number line activity – utilize whole and fraction relationships
- Relationship of fractions with multiple manipulatives
- Use of Fraction Island activities
- Use of base ten block activities

Assignment Ideas: Examples of class assignments that could be utilized

- Reflection notebook: Reflect on the internship classroom noticing the 8 Mathematical Practices daily
- Choose multiple standards and write a mini-lesson/activity to support the teaching of this module in the public school classroom
- Give the candidate math problems and then have them identify

	<p>where students might struggle</p> <ul style="list-style-type: none"> Utilize premade worksheets or textbook examples to see if the worksheet or particular textbook assignment assists with students mastering the content <p><u>Online Assignment (Discussion Board):</u></p> <ul style="list-style-type: none"> <i>Putting the Practices Into Action:</i> Chapter 8, 9, and 10 - Review of Guiding Questions (p. 151-152) [Choose 1-2 questions from this page to utilize as the Discussion Board topic each week of the module.] <p><u>Signature Assessment Part C: Reflective Presentation</u></p>
<p>Module 5 (approximately 2 weeks)</p>	<p><u>Module Content</u></p> <p>Statistics and Probability</p> <ul style="list-style-type: none"> Understanding of basic descriptive statistics (i.e., mean, median, mode, and range) Understanding of simple probability and intuitive concepts of chance (i.e., flipping a coin, spinning a spinner, rolling a number cube) Vocabulary Integrating measurement and geometry Reinforcing Professional Noticing Reinforcing 8 Mathematical Practices <p><u>Instructional Strategy Ideas:</u> (Examples the Instructor can utilize throughout the module)</p> <ul style="list-style-type: none"> Graphic Organizers Gallery Walks Note-Taking Note-booking Questioning Manipulatives Video observations with annotating Cooperative Learning <p><u>Formative Assessment Ideas:</u> (Examples the Instructor can utilize throughout the module)</p> <ul style="list-style-type: none"> Exit Slips Discussion Boards Bell-Work Entry Slips Reflections Probes of Thinking (Uncovering Student Thinking in Mathematics book) <p><u>Activity Ideas:</u> Examples of in class activities that could be incorporated</p> <ul style="list-style-type: none"> Use of manipulatives Video observations with annotating/reflection (virtually or

	<p>physically visiting classrooms)</p> <ul style="list-style-type: none"> • Backward mapping of Common Core Standards (assign a specific standard and have the students look at different grade level standards to assist with students knowing and understanding the vertical alignment of the standards) <p><u>Assignment Ideas:</u> Examples of class assignments that could be utilized</p> <ul style="list-style-type: none"> • Reflection notebook: Reflect on the internship classroom noticing the 8 Mathematical Practices daily • Choose multiple standards and write a mini-lesson/activity to support the teaching of this module in the public school classroom • Give the candidate math problems and then have them identify where students might struggle • Utilize premade worksheets or textbook examples to see if the worksheet or particular textbook assignment assists with students mastering the content <p><u>Online Assignment (Discussion Board):</u></p> <ul style="list-style-type: none"> • <i>Putting the Practices Into Action:</i> Review of Guiding Questions (p. 148-152) [Choose 1-2 questions from this page to utilize as the Discussion Board topic each week of the module.]
<p>Signature Assessment Presentations & Post-Assessment (Approximately 2 weeks)</p>	<ul style="list-style-type: none"> • Signature Assessment Part D: Candidates will orally present their Signature Assessment Multimedia Presentation to the class with peer feedback • Post-assessment of candidate math content knowledge

Signature Assessment

EDUC 4023 Teaching Mathematics Signature Assessment InTASC Standards Rubric			
InTASC Standards	3 Target (Demonstrates the knowledge needed to exceed the expectations of the standard.)	2 Acceptable (Demonstrates the basic knowledge needed to meet the expectation of the standard.)	1 Unacceptable (Does not demonstrate the knowledge needed to meet the standard The candidate needs further development.)
Standard 4:	The candidate clearly demonstrated <ul style="list-style-type: none"> • Understands common misconceptions in learning the discipline and how to guide learners to accurate conceptual understanding • Knows and uses the academic language of the discipline and knows how to make it accessible to learners • Has a deep knowledge of student content standards and learning progressions in the discipline she/he teaches 	The candidate demonstrated <ul style="list-style-type: none"> • Understands common misconceptions in learning the discipline and how to guide learners to accurate conceptual understanding • Knows and uses the academic language of the discipline and knows how to make it accessible to learners • Has a deep knowledge of student content standards and learning progressions in the discipline she/he teaches 	The candidate did not demonstrate <ul style="list-style-type: none"> • Understands common misconceptions in learning the discipline and how to guide learners to accurate conceptual understanding • Knows and uses the academic language of the discipline and knows how to make it accessible to learners • Has a deep knowledge of student content standards and learning progressions in the discipline she/he teaches
Standard 6:	The candidate clearly demonstrated <ul style="list-style-type: none"> • How to examine test and other performance data to understand each learner's progress to guide planning • How to analyze assessment 	The candidate demonstrated <ul style="list-style-type: none"> • How to examine test and other performance data to understand each learner's progress to guide planning 	The candidate did not demonstrate <ul style="list-style-type: none"> • How to examine test and other performance data to understand each learner's progress to guide planning • How to analyze assessment

	<p>data to understand patterns and gaps in learning, to guide planning and instruction, and to provide meaningful feedback to all learners</p> <ul style="list-style-type: none"> • Knows when and how to evaluate and report progress against standards • Takes responsibility for aligning instruction and assessment with learning goals • Is committed to the ethical use of various assessments and assessment data to identify learner strengths and needs to promote learner growth 	<ul style="list-style-type: none"> • How to analyze assessment data to understand patterns and gaps in learning, to guide planning and instruction, and to provide meaningful feedback to all learners • Knows when and how to evaluate and report progress against standards • Takes responsibility for aligning instruction and assessment with learning goals • Is committed to the ethical use of various assessments and assessment data to identify learner strengths and needs to promote learner growth 	<p>data to understand patterns and gaps in learning, to guide planning and instruction, and to provide meaningful feedback to all learners</p> <ul style="list-style-type: none"> • Knows when and how to evaluate and report progress against standards • Takes responsibility for aligning instruction and assessment with learning goals • Is committed to the ethical use of various assessments and assessment data to identify learner strengths and needs to promote learner growth
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SWOT ANALYSIS GUIDE

STRENGTHS	WEAKNESSES
OPPORTUNITIES FOR GROWTH	THREAT TO EFFECTIVENESS

Teacher Candidate Rating Instrument (TCRI)
University of Arkansas at Monticello
School of Education

Candidate Name: _____ Candidate ID: _____ Date: _____

Major: _____ Level of Candidate: _____ Intern I _____ Intern II _____ Grade: _____

Cooperating Teacher: _____ Assessor(s) Name: _____

Type: _____ 1st Formative observation _____ 2nd Formative observation _____ Summative evaluation

The Teacher Candidate Rating Instrument serves as both a formative and a summative assessment instrument. The instrument should be used to assist candidates with growth and development throughout their teacher preparation program; it does not correlate with the A,B,C,D,F, grading system. Candidates are expected to demonstrate progress in the classroom as they move through their program. When candidates complete their final internship, they should demonstrate teaching effectiveness with no unsatisfactory performance on any of the criteria. As candidates begin their teaching careers, they will set goals to achieve the Distinguished level.

Evidence of Teaching

Domain 1: Planning and Preparation

Component	Unsatisfactory	Basic	Proficient	Distinguished/Not Applicable to Interns
1a Demonstrating Knowledge of Content and Pedagogy	The teacher's plans and practice display little knowledge of the content, prerequisite relationships between different aspects of the content, or the instructional practices specific to that discipline.	The teacher's plans and practice reflect some awareness of the important concepts in the discipline, prerequisite relationships between them, and instructional practices specific to that discipline.	The teacher's plans and practice reflect solid knowledge of the content, prerequisite relationships between important concepts, and the instructional practices specific to that discipline.	The teacher's plans and practice reflect extensive knowledge of the content and the structure of the discipline. The teacher actively builds on knowledge of prerequisites and misconceptions when describing instruction or seeking causes for student misunderstanding.
<i>Evidence</i>				
Component	Unsatisfactory	Basic	Proficient	Distinguished/Not Applicable to Interns
1b Demonstrating Knowledge of Students	The teacher demonstrates little or no knowledge of students' backgrounds, cultures, skills, language proficiency, interests, and special needs, and does not seek such understanding.	The teacher indicates the importance of understanding students' backgrounds, cultures, skills, language proficiency, interests, and special needs, and attains this knowledge for the class as a whole.	The teacher actively seeks knowledge of students' backgrounds, cultures, skills, language proficiency, interests, and special needs, and attains this knowledge for groups of students.	The teacher actively seeks knowledge of students' backgrounds, cultures, skills, language proficiency, interests, and special needs from a variety of sources, and attains this knowledge for individual students.
<i>Evidence</i>				

Domain 1: Planning and Preparation —Continued

Component	Unsatisfactory	Basic	Proficient	Distinguished/Not Applicable to Interns
1c Setting Instructional Outcomes	Instructional outcomes are unsuitable for students, represent trivial or low-level learning, or are stated only as activities. They do not permit viable methods of assessment.	Instructional outcomes are of moderate rigor and are suitable for some students, but consist of a combination of activities and goals, some of which permit viable methods of assessment. They reflect more than one type of learning, but the teacher makes no attempt at coordination or integration.	Instructional outcomes are stated as goals reflecting high-level learning and curriculum standards. They are suitable for most students in the class, represent different types of learning, and can be assessed. The outcomes reflect opportunities for coordination.	Instructional outcomes are stated as goals that can be assessed, reflecting rigorous learning and curriculum standards. They represent different types of content, offer opportunities for both coordination and integration, and take account of the needs of individual students.
<i>Evidence</i>				
Component	Unsatisfactory	Basic	Proficient	Distinguished/Not Applicable to Interns
1d Demonstrating Knowledge of Resources	The teacher demonstrates little or no familiarity with resources to enhance own knowledge, to use in teaching, or for students who need them. The teacher does not seek such knowledge.	The teacher demonstrates some familiarity with resources available through the school or district to enhance own knowledge, to use in teaching, or for students who need them. The teacher does not seek to extend such knowledge.	The teacher is fully aware of the resources available through the school or district to enhance own knowledge, to use in teaching, or for students who need them.	The teacher seeks out resources in and beyond the school or district in professional organizations, on the Internet, and in the community to enhance own knowledge, to use in teaching, and for students who need them.
<i>Evidence</i>				

Domain 1: Planning and Preparation —Continued

Component	Unsatisfactory	Basic	Proficient	Distinguished/Not Applicable to Interns
<p>1e Designing Coherent Instruction</p>	<p>The series of learning experiences is poorly aligned with the instructional outcomes and does not represent a coherent structure. The experiences are suitable for only some students.</p>	<p>The series of learning experiences demonstrates partial alignment with instructional outcomes, some of which are likely to engage students in significant learning. The lesson or unit has a recognizable structure and reflects partial knowledge of students and resources.</p>	<p>The teacher coordinates knowledge of content, students, and resources to design a series of learning experiences aligned to instructional outcomes and suitable to groups of students. The lesson or unit has a clear structure and is likely to engage students in significant learning.</p>	<p>The teacher coordinates knowledge of content, students, and resources to design a series of learning experiences aligned to instructional outcomes, differentiated where appropriate to make them suitable for all students and likely to engage them in significant learning. The lesson or unit's structure is clear and allows for different pathways according to student needs.</p>
<p><i>Evidence</i></p>				
Component	Unsatisfactory	Basic	Proficient	Distinguished/Not Applicable to Interns
<p>1f Designing Student Assessments</p>	<p>The teacher's plan for assessing student learning contains no clear criteria or standards, is poorly aligned with the instructional outcomes, or is inappropriate for many students. The results of assessment have minimal impact on the design of future instruction.</p>	<p>The teacher's plan for student assessment is partially aligned with the instructional outcomes, without clear criteria, and inappropriate for at least some students. The teacher intends to use assessment results to plan for future instruction for the class as a whole.</p>	<p>The teacher's plan for student assessment is aligned with the instructional outcomes, uses clear criteria, and is appropriate for the needs of students. The teacher intends to use assessment results to plan for future instruction for groups of students.</p>	<p>The teacher's plan for student assessment is fully aligned with the instructional outcomes, with clear criteria and standards that show evidence of student contribution to their development. Assessment methodologies may have been adapted for individuals, and the teacher intends to use assessment results to plan future instruction for individual students.</p>
<p><i>Evidence</i></p>				

Domain 2: The Classroom Environment

Component	Unsatisfactory	Basic	Proficient	Distinguished/Not Applicable to Interns
<p>2a Creating an Environment of Respect and Rapport</p>	<p>Classroom interactions, both between the teacher and students and among students, are negative, inappropriate, or insensitive to students' cultural backgrounds, and characterized by sarcasm, put-downs, or conflict.</p>	<p>Classroom interactions, both between the teacher and students and among students, are generally appropriate and free from conflict, but may be characterized by occasional displays of insensitivity or lack of responsiveness to cultural or developmental differences among students.</p>	<p>Classroom interactions, both between teacher and students and among students, are polite and respectful, reflecting general warmth and caring, and are appropriate to the cultural and developmental differences among groups of students.</p>	<p>Classroom interactions among the teacher and individual students are highly respectful, reflecting genuine warmth and caring and sensitivity to students' cultures and levels of development. Students themselves ensure high levels of civility among members of the class.</p>
<p><i>Evidence</i></p>				
Component	Unsatisfactory	Basic	Proficient	Distinguished/Not Applicable to Interns
<p>2b Establishing a Culture for Learning</p>	<p>The classroom environment conveys a negative culture for learning, characterized by low teacher commitment to the subject, low expectations for student achievement, and little or no student pride in work.</p>	<p>The teacher's attempts to create a culture for learning are partially successful, with little teacher commitment to the subject, modest expectations for student achievement, and little student pride in work. Both teacher and students appear to be only "going through the motions."</p>	<p>The classroom culture is characterized by high expectations for most students and genuine commitment to the subject by both teacher and students, with students demonstrating pride in their work.</p>	<p>High levels of student energy and teacher passion for the subject create a culture for learning in which everyone shares a belief in the importance of the subject and all students hold themselves to high standards of performance—for example, by initiating improvements to their work.</p>
<p><i>Evidence</i></p>				

Domain 2: The Classroom Environment—Continued

Component	Unsatisfactory	Basic	Proficient	Distinguished/Not Applicable to Interns
2c Managing Classroom Procedures	Much instructional time is lost because of inefficient classroom routines and procedures for transitions, handling of supplies, and performance of noninstructional duties.	Some instructional time is lost because classroom routines and procedures for transitions, handling of supplies, and performance of noninstructional duties are only partially effective.	Little instructional time is lost because of classroom routines and procedures for transitions, handling of supplies, and performance of noninstructional duties, which occur smoothly.	Students contribute to the seamless operation of classroom routines and procedures for transitions, handling of supplies, and performance of noninstructional duties.
<i>Evidence</i>				
Component	Unsatisfactory	Basic	Proficient	Distinguished/Not Applicable to Interns
2d Managing Student Behavior	There is no evidence that standards of conduct have been established, and little or no teacher monitoring of student behavior. Response to student misbehavior is repressive or disrespectful of student dignity.	It appears that the teacher has made an effort to establish standards of conduct for students. The teacher tries, with uneven results, to monitor student behavior and respond to student misbehavior.	Standards of conduct appear to be clear to students, and the teacher monitors student behavior against those standards. The teacher response to student misbehavior is appropriate and respects the students' dignity.	Standards of conduct are clear, with evidence of student participation in setting them. The teacher's monitoring of student behavior is subtle and preventive, and the teacher's response to student misbehavior is sensitive to individual student needs. Students take an active role in monitoring the standards of behavior.
<i>Evidence</i>				

Domain 2: The Classroom Environment—Continued

Component	Unsatisfactory	Basic	Proficient	Distinguished/Not Applicable to Interns
<p>2e Organizing Physical Space</p>	<p>The physical environment is unsafe, or some students don't have access to learning. There is poor alignment between the physical arrangement and the lesson activities.</p>	<p>The classroom is safe, and essential learning is accessible to most students; the teacher's use of physical resources, including computer technology, is moderately effective. The teacher may attempt to modify the physical arrangement to suit learning activities, with partial success.</p>	<p>The classroom is safe, and learning is accessible to all students; the teacher ensures that the physical arrangement is appropriate for the learning activities. The teacher makes effective use of physical resources, including computer technology.</p>	<p>The classroom is safe, and the physical environment ensures the learning of all students, including those with special needs. Students contribute to the use or adaptation of the physical environment to advance learning. Technology is used skillfully, as appropriate to the lesson.</p>
<p><i>Evidence</i></p>				

Domain 3: Instruction

Component	Unsatisfactory	Basic	Proficient	Distinguished/Not Applicable to Interns
<p>3a Communicating with Students</p>	<p>Expectations for learning, directions and procedures, and explanations of content are unclear or confusing to students. The teacher's use of language contains errors or is inappropriate for students' cultures or levels of development.</p>	<p>Expectations for learning, directions and procedures, and explanations of content are clarified after initial confusion; the teacher's use of language is correct but may not be completely appropriate for students' cultures or levels of development.</p>	<p>Expectations for learning, directions and procedures, and explanations of content are clear to students. Communications are appropriate for students' cultures and levels of development.</p>	<p>Expectations for learning, directions and procedures, and explanations of content are clear to students. The teacher's oral and written communication is clear and expressive, appropriate to students' cultures and levels of development, and anticipates possible student misconceptions.</p>
<p><i>Evidence</i></p>				
Component	Unsatisfactory	Basic	Proficient	Distinguished/Not Applicable to Interns
<p>3b Using Questioning and Discussion Techniques</p>	<p>The teacher's questions are low-level or inappropriate, eliciting limited student participation, and recitation rather than discussion.</p>	<p>Some of the teacher's questions elicit a thoughtful response, but most are low-level, posed in rapid succession. The teacher's attempts to engage all students in the discussion are only partially successful.</p>	<p>Most of the teacher's questions elicit a thoughtful response, and the teacher allows sufficient time for students to answer. All students participate in the discussion, with the teacher stepping aside when appropriate.</p>	<p>Questions reflect high expectations and are culturally and developmentally appropriate. Students formulate many of the high-level questions and ensure that all voices are heard.</p>
<p><i>Evidence</i></p>				

Domain 3: Instruction —Continued

Component	Unsatisfactory	Basic	Proficient	Distinguished/Not Applicable to Interns
3c Engaging Students in Learning	Activities and assignments, materials, and groupings of students are inappropriate for the instructional outcomes or students' cultures or levels of understanding, resulting in little intellectual engagement. The lesson has no structure or is poorly paced.	Activities and assignments, materials, and groupings of students are partially appropriate for the instructional outcomes or students' cultures or levels of understanding, resulting in moderate intellectual engagement. The lesson has a recognizable structure but is not fully maintained.	Activities and assignments, materials, and groupings of students are fully appropriate for the instructional outcomes and students' cultures and levels of understanding. All students are engaged in work of a high level of rigor. The lesson's structure is coherent, with appropriate pace.	Students, throughout the lesson, are highly intellectually engaged in significant learning and make material contributions to the activities, student groupings, and materials. The lesson is adapted as needed to the needs of individuals, and the structure and pacing allow for student reflection and closure.
<i>Evidence</i>				
Component	Unsatisfactory	Basic	Proficient	Distinguished/Not Applicable to Interns
3d Using Assessment in Instruction	Assessment is not used in instruction, either through monitoring of progress by the teacher or students, or feedback to students. Students are not aware of the assessment criteria used to evaluate their work.	Assessment is occasionally used in instruction, through some monitoring of progress of learning by the teacher and/or students. Feedback to students is uneven, and students are aware of only some of the assessment criteria used to evaluate their work.	Assessment is regularly used in instruction, through self-assessment by students, monitoring of progress of learning by the teacher and/or students, and high-quality feedback to students. Students are fully aware of the assessment criteria used to evaluate their work.	Assessment is used in a sophisticated manner in instruction, through student involvement in establishing the assessment criteria, self-assessment by students, monitoring of progress by both students and the teacher, and high-quality feedback to students from a variety of sources.
<i>Evidence</i>				

Domain 3: Instruction —Continued

Component	Unsatisfactory	Basic	Proficient	Distinguished/Not Applicable to Interns
3e Demonstrating Flexibility and Responsiveness	The teacher adheres to the instruction plan, even when a change would improve the lesson or address students' lack of interest. The teacher brushes aside student questions; when students experience difficulty, the teacher blames the students or their home environment.	The teacher attempts to modify the lesson when needed and to respond to student questions, with moderate success. The teacher accepts responsibility for student success but has only a limited repertoire of strategies to draw upon.	The teacher promotes the successful learning of all students, making adjustments as needed to instruction plans and accommodating student questions, needs, and interests.	The teacher seizes an opportunity to enhance learning, building on a spontaneous event or student interests. The teacher ensures the success of all students, using an extensive repertoire of instructional strategies.
<p><i>Evidence</i></p>				

Domain 4: Professional Responsibilities

Component	Unsatisfactory	Basic	Proficient	Distinguished/Not Applicable to Interns
4a Reflecting on Teaching	The teacher does not accurately assess the effectiveness of the lesson and has no ideas about how the lesson could be improved.	The teacher provides a partially accurate and objective description of the lesson but does not cite specific evidence. The teacher makes only general suggestions as to how the lesson might be improved.	The teacher provides an accurate and objective description of the lesson, citing specific evidence. The teacher makes some specific suggestions as to how the lesson might be improved.	The teacher's reflection on the lesson is thoughtful and accurate, citing specific evidence. The teacher draws on an extensive repertoire to suggest alternative strategies and predicts the likely success of each.
<i>Evidence</i>				

Component	Unsatisfactory	Basic	Proficient	Distinguished/Not Applicable to Interns
4b Maintaining Accurate Records	The teacher's systems for maintaining both instructional and noninstructional records are either nonexistent or in disarray, resulting in errors and confusion.	The teacher's systems for maintaining both instructional and noninstructional records are rudimentary and only partially effective.	The teacher's systems for maintaining both instructional and noninstructional records are accurate, efficient, and effective.	The teacher's systems for maintaining both instructional and noninstructional records are accurate, efficient, and effective, and students contribute to its maintenance.
<i>Evidence</i>				

Domain 4: Professional Responsibilities —Continued

Component	Unsatisfactory	Basic	Proficient	Distinguished/Not Applicable to Interns
4c Communicating with Families	The teacher's communication with families about the instructional program or about individual students is sporadic or culturally inappropriate. The teacher makes no attempt to engage families in the instructional program.	The teacher adheres to school procedures for communicating with families and makes modest attempts to engage families in the instructional program. But communications are not always appropriate to the cultures of those families.	The teacher communicates frequently with families and successfully engages them in the instructional program. Information to families about individual students is conveyed in a culturally appropriate manner.	The teacher's communication with families is frequent and sensitive to cultural traditions; students participate in the communication. The teacher successfully engages families in the instructional program, as appropriate.
<i>Evidence</i>				

Component	Unsatisfactory	Basic	Proficient	Distinguished/Not Applicable to Interns
4d Participating in a Professional Community	The teacher avoids participating in a professional community or in school and district events and projects; relationships with colleagues are negative or self-serving.	The teacher becomes involved in the professional community and in school and district events and projects when specifically asked; relationships with colleagues are cordial.	The teacher participates actively in the professional community and in school and district events and projects, and maintains positive and productive relationships with colleagues.	The teacher makes a substantial contribution to the professional community and to school and district events and projects, and assumes a leadership role among the faculty.
<i>Evidence</i>				

Component	Unsatisfactory	Basic	Proficient	Distinguished/Not Applicable to Interns
4e Growing and Developing Professionalism	The teacher does not participate in professional development activities and makes no effort to share knowledge with colleagues. The teacher is resistant to feedback from supervisors or colleagues.	The teacher participates in professional development activities that are convenient or are required, and makes limited contributions to the profession. The teacher accepts, with some reluctance, feedback from supervisors and colleagues.	The teacher seeks out opportunities for professional development based on an individual assessment of need and actively shares expertise with others. The teacher welcomes feedback from supervisors and colleagues.	The teacher actively pursues professional development opportunities and initiates activities to contribute to the profession. In addition, the teacher seeks feedback from supervisors and colleagues.

Evidence
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Component	Unsatisfactory	Basic	Proficient	Distinguished/Not Applicable to Interns
4f Showing Professionalism	The teacher has little sense of ethics and professionalism and contributes to practices that are self-serving or harmful to students. The teacher fails to comply with school and district regulations and time lines.	The teacher is honest and well intentioned in serving students and contributing to decisions in the school, but the teacher's attempts to serve students are limited. The teacher complies minimally with school and district regulations, doing just enough to get by.	The teacher displays a high level of ethics and professionalism in dealings with both students and colleagues and complies fully and voluntarily with school and district regulations.	The teacher is proactive and assumes a leadership role in making sure that school practices and procedures ensure that all students, particularly those traditionally underserved, are honored in the school. The teacher displays the highest standards of ethical conduct and takes a leadership role in seeing that colleagues comply with school and district regulations.

Evidence

Individual Professional Development Plan

Teacher _____ School _____

Grade Level(s) _____ Subject(s) _____ Date _____

Based on your self-assessment, your administrator's input, and any school or district initiatives, what goal have you identified? What is an area of knowledge or skill that you would like to strengthen?

Describe the connection between this goal and your teaching assignment.

What would success on this goal look like? How will you know when you have achieved it? What would count as evidence of success?

Describe the activities you will do to work toward your goal, and their time lines.

Activity

Time Line

What resources will you need to better achieve your goal?

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