Math 3309: Foundations of Elementary Mathematics II Syllabus

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Office Hours: 9:00-11:30 am Monday-Thursday
Office: Corner office in B-Building
Course Format: Online scheduled (Thursday 5:00-7:30 pm)
Semester: Spring 2025

Course Description:
Geometric concepts, probability, statistics, estimation, problem solving and other related topics. Elementary Education majors only. Prerequisite: MTH 3308

Required Text:
Mathematics for elementary teachers with activities, 5th Edition, Sybilla Beckman. ISBN 13 978-0-321-82572-8.
*We will cover most of chapters 9 through 16.

Student Learning Outcomes:
1. Students will apply knowledge of basic mathematics principles.
2. Students will identify and provide valid proofs or solutions for theorems or problems.
3. Students will recognize and dispute invalid mathematical statements by using counter examples.

Marketable Skills:
1. Students are adaptable and flexible and communicate effectively.
2. Students have the ability to teach diverse learners in an inclusive learning environment.
3. Students have the ability to assess student learning.
4. Students have the ability to effectively use technology.
5. Students can use critical thinking and creative thinking in the workplace.
6. Students are skilled in teamwork and conflict management.
7. Students have the ability to construct a classroom management plan.

EC-6 Teaching Competencies
- Competency 001 (Mathematics Instruction): The teacher understands how students learn mathematical skills and uses that knowledge to plan, organize and implement instruction and assess learning.
- Competency 002 (Number Concepts and Operations): The teacher understands concepts related to numbers, operations and algorithms and the properties of numbers.
- Competency 003 (Patterns and Algebra): The teacher understands concepts related to patterns, relations, functions and algebraic reasoning.

- Competency 004 (Geometry and Measurement): The teacher understands concepts and principles geometry and measurement.
- Competency 005 (Probability and Statistics): The teacher understands concepts related to probability and statistics and their applications.
- Competency 006 (Mathematical Processes): The teacher understands mathematical processes and knows how to reason mathematically, solve mathematical problems and make mathematical connections within and outside of mathematics.

Course Format:
This is an online course that will be done through Blackboard. Our online meetings are scheduled for Thursdays from 5:00 PM to 7:30 PM, and we will be using the Class Collaborate system on Blackboard. Please note that attendance is mandatory for these sessions. You will find all course information and assignments on Blackboard.

Course Assignements :
- Module Quizzes (17 points)- This assignment consists of six quizzes, each covering the content from the corresponding module. Students are required to complete all quizzes to assess their understanding of the material throughout the course.
- Module Assignments (8)- This course includes a series of assignments designed to apply the concepts learned in each module. Completing these assignments is crucial for reinforcing your understanding and demonstrating your ability to apply the material in practical contexts.
- Classroom Management Plan (10 points)- You will create and present a classroom management plan that includes strategies and guidelines for maintaining discipline, engaging students, and ensuring that classroom activities run smoothly.
- Drafting a Lesson Plan (10 points)- You will draft a lesson plan that reflects the grade you desire to teach. You will utilize the readings, and materials encountered up to this point to draft a lesson plan with grade objective, standards, materials needed, activities, assessment, differentiation, closure, homework, and reflection. You will also be expected to share your lesson plan with your peers and evaluate two of your classmate's lesson plan.
- Midterm Exam (10 points)- In this graded midterm within blackboard, you will complete ten questions designed to help students delve more deeply into the text material, to strengthen knowledge, skills, and understanding of the concepts, definitions, and theories behind developmental and learning.
- Drafting of Lesson Plan/Peer Review (10 points)- Students will submit their updated lesson plans, including differentiation strategies for diverse student populations, to Blackboard for peer review. During the review, they will provide constructive feedback to their peers and reflect on ways to improve their own lesson plans based on the feedback received.
- Revised Lesson Plan Presentations (20 points)- Utilizing the feedback provided from your instructor and your peers, you will revise and add to the draft you created in the

previous module. This assignment will help you conceptualize a step-by-step plan for evaluating and teaching your students.

- Course Reflection Paper (5 points)- You will complete a metacognitive reflective 1-2 page paper in which you will describe the concepts, ideas or practices that have been the most helpful to your growth and development as a student.
- Final Exam (10 points)- In this exam within blackboard, you will complete 5 questions designed to help you delve more deeply into the text material, to strengthen knowledge, skills, and understanding of the concepts, definitions, and theories behind developmental and learning.

Course Assignments and Schedule:

Weeks	Modules	Assignments	Due Dates	Points
January 16 and 23	Module 1: Algebra	• Review Syllabus • Algebra Assignment • Module Quiz	1/23	4 5
January 30 and February 6	Module 2: Geometry	• Basic Geometry Assignment • Module 2 Quiz • Classroom Management Plan	2/6	2 2 10
February 13 and 20	Module 3: Measurement	• Measurement Assignment • Module 3 Quiz	2/20	2 2
February 27 and March 6	Module 4: Area of Shape	• Module 4 Quiz • Drafting of Lesson Plan	3/6	4 10
March 13 and 20	Module 5: Midterm and Spring break	• Midterm Exam	3/13	10
March 27 and April 3	Module 6: Geometry of Motion and Change	• Module 6 Quiz • Drafting of Lesson Plan (Peer Review)	4/3	4 10
April 10 and 17	Module 7: Revised Lesson Plan Presentation	• Revised Lesson Plan Presentation	4/10 or 4/17	20
April 24 and May 1	Module 8: Course Reflection and Final Exam	• Course Reflection • Final Exam	4/24 5/1	5 10

**This course syllabus is intended to be a guide and may be amended at any time*

Paper Specifics:

All formatting and referencing should follow *The Publication Manual of the American Psychological Association, 7th Edition.* Papers should be written in Times New Roman, 12-point font, double spaced, and submitted as a .docx, .doc, or .pdf file. All papers should be neat, contain no misspellings, contain no typing errors, and employ proper grammar. If your paper contains grammatical errors, the professor may return the paper without grading it. Your faculty

will determine the date for submission for the revised paper and 10% will be automatically deducted.

Late Assignments:
Assignments are due by 11:59 pm Central Standard time on the due date. The penalty for late assignments is 10% per calendar day late. Weekend days are counted as late days.

Grading Policy:
Grades are awarded based on point accumulation. Each assignment has a maximum number of points that can be earned by successfully completing the assignment. Partial points will be awarded for meeting some but not all the standards identified for each project or assignment. No late work accepted without prior approval from the instructor. If there is no communication about late work, the grade will be a 0.

- Grading Scale:
    A. 90-100 points
    B. 80-89 points
    C. 70-79 points
    D. 60-69 points
    F. 59 points or lower

Points Per Assignment:
Module Quizzes- 17 points
Module Assignments- 8 points
Classroom Management Plan- 10 points
Drafting of Lesson Plan- 10 points
Midterm-10 points
Drafting of Lesson Plan (Peer Review)- 10 points
Revised Lesson Plan Presentation- 20 points
Course Reflection Paper- 5 points
Final Exam- 10 points

TITLE 19 EDUCATION
PART 7 STATE BOARD FOR EDUCATOR CERTIFICATION
CHAPTER 228 REQUIREMENTS FOR EDUCATOR PREPARATION PROGRAMS
RULE §228.30 Educator Preparation Curriculum:
(a) The educator standards adopted by the State Board for Educator Certification (SBEC) shall be the curricular basis for all educator preparation and, for each certificate, address the relevant Texas Essential Knowledge and Skills (TEKS).
(b) The curriculum for each educator preparation program shall rely on scientifically based research to ensure teacher effectiveness and align to the TEKS. The following subject matter shall be included in the curriculum for candidates seeking initial certification:

1. the specified requirements for reading instruction adopted by the SBEC for each certificate;

2. the code of ethics and standard practices for Texas educators, pursuant to Chapter 247 of this title (relating to Educators' Code of Ethics);
3. child development;
4. motivation;
5. learning theories;
6. TEKS organization, structure, and skills;
7. TEKS in the content areas;
8. state assessment of candidates;
9. curriculum development and lesson planning;
10. classroom assessment for instruction/diagnosing learning needs;
11. classroom management/developing a positive learning environment;
12. special populations;
13. parent conferences/communication skills;
14. instructional technology;
15. pedagogy/instructional strategies;
16. differentiated instruction; and
17. certification test preparation.

§235.15. Science of Teaching Reading Standards, Early Childhood: Prekindergarten-Grade 3:

a) Early Childhood: Prekindergarten-Grade 3 Science of Teaching Reading (STR) standards. The STR standards identified in this section are targeted for classroom teachers of early learners (birth through age eight). The standards address the discipline that deals with the theory and practice of teaching early reading. The standards inform proper teaching techniques, strategies, teacher actions, teacher judgements, and decisions by taking into consideration theories of learning, understandings of students and their needs, and the backgrounds and interests of individual students. The standards are also aligned with the *Texas Prekindergarten Guidelines* and Chapter 110 of this title (relating to Texas Essential Knowledge and Skills for English Language Arts and Reading). The standards address early reading content knowledge in Prekindergarten-Grade 5, with an emphasis on Prekindergarten-Grade 3, in order to meet the needs of all learners and address vertical alignment.

(b) Reading Development. The Early Childhood: Prekindergarten-Grade 3 classroom teachers demonstrate understanding of Kindergarten-Grade 5 Texas Essential Knowledge and Skills (TEKS) and *Texas Prekindergarten Guidelines* pertaining to reading and apply knowledge of developmentally appropriate, research- and evidence-based assessment and instructional practices to promote students' development of grade level skills within the following components of reading:

1. oral language development;
2. print awareness;
3. phonological and phonemic awareness;
4. phonics;
5. fluency;
6. vocabulary development;

7. comprehension of literary text;
8. comprehension of informational text; and
9. beginning strategies and reading comprehension skills.

(c) Reading Pedagogy. The Early Childhood: Prekindergarten-Grade 3 classroom teachers demonstrate understanding of the principles of reading instruction and assessment and use a range of instructional strategies and assessment methods to promote students' development of foundational reading skills, including:

1. implementing both formal and informal methods of measuring student progress in early reading development.
2. designing and executing developmentally appropriate, standards-driven instruction that reflect evidence-based best practices; and
3. acquiring, analyzing, and using background information (familial, cultural, educational, linguistic, and developmental characteristics) to engage all students in reading, including students with exceptional needs and English language learners.

Texas Pre-K Guidelines: https://tea.texas.gov/sites/default/files/PKG_Final_2015_navigation.pdf

ADA Statement:

SRSU Accessibility Services. Sul Ross State University (SRSU) is committed to equal access in compliance with the Americans with Disabilities Act of 1973. It is SRSU policy to provide reasonable accommodations to students with documented disabilities. It is the student's responsibility to initiate a request each semester for each class. Students seeking accessibility/accommodations services must contact Mrs. Mary Schwartze Grisham, LPC, SRSU's Accessibility Services Director or Ronnie Harris, LPC, Counselor, at 432-837-8203 or email mschwartze@sulross.edu or ronnie.harris@sulross.edu. Our office is located on the first floor of Ferguson Hall, room 112, and our mailing address is P.O. Box C122, Sul Ross State University, Alpine. Texas, 79832.

SRSU Distance Education Statement:

Students enrolled in distance education courses have equal access to the university's academic support services, such as library resources, online databases, and instructional technology support. For more information about accessing these resources, visit the SRSU website.

Students should correspond using Sul Ross email accounts and submit online assignments through Blackboard, which requires a secure login. Students enrolled in distance education courses at Sul Ross are expected to adhere to all policies pertaining to academic honesty and appropriate student conduct, as described in the student handbook. Students in web-based courses must maintain appropriate equipment and software, according to the needs and requirements of the course, as outlined on the SRSU website. Directions for filing a student complaint are located in the student handbook.

Counseling:

Sul Ross has partnered with TimelyCare where all SR students will have access to nine free counseling sessions. You can learn more about this 24/7/356 support by visiting Timelycare/SRSU.

The SR Counseling and Accessibility Services office will continue to offer in-person counseling in Ferguson Hall room 112 (Alpine campus), and telehealth Zoom sessions for remote students and RGC students.

Library Information:
The Bryan Wildenthal Memorial Library in Alpine offers FREE resources and services to the entire SRSU community. Access and borrow books, articles, and more by visiting the library's website, library.sulross.edu. Off-campus access requires logging in with your LobolD and password. Librarians are a tremendous resource for your coursework and can be reached in person, by email (srsulibrary@sulross.edu), or phone (432-837-8123).

No matter where you are based, public libraries and many academic and special libraries welcome the general public into their spaces for study. SRSU TexShare Cardholders can access additional services and resources at various libraries across Texas. Learn more about the TexShare program by visiting library.sulross.edu/find-and-borrow/texshare/ or ask a librarian by emailing srsulibrary@sulross.edu.
Mike Fernandez, SRSU Librarian, is based in Eagle Pass (Building D-129) to offer specialized library services to students, faculty, and staff. Utilize free services such as InterLibrary Loan (ILL), ScanIt, and Direct Mail to get materials delivered to you at home or via email.

Academic Integrity:
Students in this class are expected to demonstrate scholarly behavior and academic honesty in the use of intellectual property. Students should submit work that is their own and avoid the temptation to engage in behaviors that violate academic integrity, such as turning in work as original that was used in whole or part for another course and/or professor; turning in another person's work as one's own; copying from professional works or internet sites without citation; collaborating on a course assignment, examination, or quiz when collaboration is forbidden. Students should also avoid using open AI sources unless permission is expressly given for an assignment or course. Violations of academic integrity can result in failing assignments, failing a class, and/or more serious university consequences. These behaviors also erode the value of college degrees and higher education overall.

Required Student Responsibilities Statement:
All full-time and part-time students are responsible for familiarizing themselves with the Student Handbook and the Undergraduate & Graduate Catalog and for abiding by the University rules and regulations. Additionally, students are responsible for checking their Sul Ross email as an official form of communication from the university. Every student is expected to obey all federal, state and local laws and is expected to familiarize themselves with the requirements of such laws.

Classroom Climate of Respect:
Importantly, this class will foster free expression, critical investigation, and the open discussion of ideas. This means that all of us must help create and sustain an atmosphere of tolerance, civility, and respect for the viewpoints of others. Similarly, we must all learn how to probe, oppose and

disagree without resorting to tactics of intimidation, harassment, or personal attack. No one is entitled to harass, belittle, or discriminate against another on the basis of race, religion, ethnicity, age, gender, national origin, or sexual preference. Still, we will not be silenced by the difficulty of fruitfully discussing politically sensitive issues.