

Course Syllabus
MATH 2311: Foundations of Elementary Mathematics II
Spring 2016

Instructor: Dr. Angela Brown

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Office Hours: M 3-5, T 3:30-5, W 9-11, 4-5, R 3:30-5, others by appointment.

Time and Place of Class Meetings: TTh 9:30-10:45 ACR 206

Prerequisites: Satisfactory completion of Math 2310 with a grade of C or better.

Required Textbooks: *Mathematics for Elementary Teachers with Activities*, 4th Edition, Sybilla Beckman. ISBN13 978-0-321-82572-8. We will cover most of chapters 7 through 16.

Other Equipment Needed: paper and pencils.

Course Description: Second course in the mathematics content sequence for preservice elementary and middle school teachers. Topics include: fraction operations, decimals, real numbers, ratio and proportion, percent, basic notions of geometry, measurement, and basic probability and statistics.

Course Objectives By the end of the course, the successful student will be able to:

- Understand and discuss mathematics content for pre-service elementary and middle school teachers
- Be able to relate the topics below to teaching at those levels
- Grasp and understand the reasons for addressing mathematical concepts rather than solving problems
- Demonstrate their understanding of the material with course exams

Mathematics Program Learning Objectives:

The graduating student should be able to:

- Apply knowledge of basic mathematics principles.
- Identify and provide valid proofs or solutions for theorems or problems.
- Recognize and dispute invalid mathematical statements by using counter-examples.

EC TO 6 Teacher Competencies

- Competency 013 (Mathematics Instruction) The teacher understands how students learn mathematical skills and uses that knowledge to plan, organize and implement instruction and assess learning.

- Competency 014 (Number Concepts and Operation) The teacher understands concepts related to numbers, operations and algorithms and the properties of numbers. 2
- Competency 015 (Patterns and Algebra) The teacher understands concepts related to patterns, relations, functions and algebraic reasoning.
- Competency 016 (Geometry and Measurement) The teacher understands concepts and principles of geometry and measurement.
- Competency 017 (Probability and Statistics) The teacher understands concepts related to probability and statistics and their applications.
- Competency 018 (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.

Grading Scale: 90-100 A, 80-89 B, 70-79 C, 60-69 D, 59-Below F

Grading Policy: The grade weighting will be as follows:

Homework/In Class Work/Quizzes: 25%

Exam 1: 15%

Exam 2: 15%

Exam 3 (Final): 15%

Presentations: 30%

Homework will be assigned periodically throughout the semester. Homework assignments must be complete and will be turned in on Tuesdays during class. Not all problems will be graded for content, but the assignment grade is contingent on completeness. If you use outside references, make sure to properly source the material. Copying answers from the back of the book will be considered plagiarism and will be prosecuted thusly. No late work will be excepted.

You will have two presentations this semester to be chosen from the sections to be covered. The presentation requirements will be given to you at a later date.

There will be three exams. All exams will be closed notes, closed book, and no calculators allowed. No make-up exams will be given unless due to a school function. Any restroom breaks need to be taken before an exam starts. You cannot leave the classroom in the middle of an exam under any circumstances.

The final exam is on Tuesday May 10 at 8:00 am.

General Policies: Class will start at the designated time and run for 1hour and 15 minutes with no breaks. You are expected to be on time, attend every class meeting, stay for the duration of class time and come to learn. Do not schedule any appointments that will conflict with class time; if you have done so then I need documentation of the appointments.

You are expected to bring all necessary materials and take notes and participate. You are expected to turn-off and not to access any electronic, non-task oriented device such as cell/smart phones/pads and i-pods. A cell phone cannot be used as a calculator. Devices for recording the lecture are permitted; either audio or video.

If you come to class without your materials then you will be released from class to go get the appropriate materials. If you try to sleep during class or put your head on your desk you will have to leave class and go home and sleep. Working on another class is not allowed. If you sit with your arms crossed, you will be asked to take notes and participate. If you are causing others around you to miss lecture material then you will be asked to leave.

Any personal business must be conducted during office hours or by appointment. I will only discuss grades and attendance issues in my office. Classroom time is for the entire class.

Attendance Policy: Students are expected to attend every class. If class must be missed, the student is expected to get the notes from a classmate, and to check with me or on Blackboard for announcements and updated assignments. You are expected to check your Sul Ross e-mail account. Absences due to school functions should be discussed with me ahead of time.

Students are expected to arrive to class on time. If a student is perpetually late, they will be asked to not attend class unless they arrive on time. If tardiness becomes a problem for the class as a whole, people who arrive late will not be permitted to enter the class. If this stricter policy becomes necessary, there will be an announcement made in class.

It is policy of the university to drop a student with a grade of “F” if 9 hours or more of class are missed. For this course that would be 6 or more class sessions missed.

Americans With Disabilities Act: As an instructor, I am required by law to provide “reasonable accommodations” to students with disabilities, so as not to discriminate on the basis of that disability. Student responsibility primarily rests with informing the instructor for MATH 2311 of their need for accommodation and in providing authorized documentation through designated administrative channels. If you need to request such accommodations, please contact the ADA Coordinator in Counseling and Accessibility Services, Ferguson Hall 112, 432-837-8203.

Important Dates:

January 19	First Day of Classes
January 22	Last Day for Late Registration and Schedule Changes
February 3	12th class day
March 14-18	Spring Break
March 25	Good Friday
April 8	Last Day to Withdrawal from University or Drop Classes with a Grade of “W” (by 4 pm)
May 4	Last Day of Classes
May 6-12	Final Exams
May 13	Commencement

Tentative Schedule-Subject to Change

Tuesday		Thursday	
Jan 19, 2016	Intro, Algebra	Jan 21, 2016	Algebra
Jan 26, 2016	Algebra	Jan 28, 2016	Algebra
Feb 2, 2016	Algebra/Geometry	Feb 4, 2016	Geometry
Feb 9, 2016	Geometry	Feb 11, 2016	Geometry
Feb 16, 2016	Review	Feb 18, 2016	Exam 1
Feb 23, 2016	Measurement	Feb 25, 2016	Measurement
Mar 1, 2016	Measurement	Mar 3, 2016	Area
Mar 8, 2016	Area	Mar 10, 2016	Area
Mar 15, 2016	Spring Break	Mar 17, 2016	Spring Break
Mar 22, 2016	Volume	Mar 24, 2016	Surface Area
Mar 29, 2016	Review	Mar 31, 2016	Exam 2
Apr 5, 2016	Geometry of Motion	Apr 7, 2016	Geometry of Motion
Apr 12, 2016	Geometry of Motion	Apr 14, 2016	Statistics
Apr 19, 2016	Statistics	Apr 21, 2016	Statistics
Apr 26, 2016	Probability	Apr 28, 2016	Probability
May 3, 2016	Probability/Review	May 5, 2016	Dead Day