

Sul Ross State University
Course Syllabus
MATH 1332-001: Contemporary Mathematics
Spring 2017

Instructor: Dr. Angela Brown

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Office Hours: MW 10-12 and 4-5, TR 3:30-4:30, others by appointment.

Time and Place of Class Meetings: TR 9:30 am-10:45 am ACR 205

Course Prerequisites: Undergraduate level Math 0300 Minimum Grade of D or high enough score on one of the math placement exams (ASSET 38, ACCUPLACER 63, MAPS 613, THEA 230, TASP 230, COMPASS 39).

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.

Course Objectives:

- The student will be able to use problem solving strategies to gain a deeper knowledge of a problem.
- The student will be able to solve change of base problems including from a historical perspective.
- The student will be able to find and understand numbers beyond the integers.
- The student will be able to distinguish between different graphs and knots.
- The student will expand on their knowledge of Euclidean geometry into other branches of geometry.

Required Textbooks: *The Heart of Mathematics* 3rd ed, Burger and Starbird, ISBN 978-0-470-49951-1.

Other Equipment Needed: paper and pencils, possibly markers and or colored pencils. Other materials may be needed as the course progresses.

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 20%

Quizzes/In Class Assignments: 20%

Participation: 10%

Project: 20%
Exams: 30%

Quizzes: Quizzes will be given periodically. You will have advanced warning of most quizzes. Additional in class assignments will be given and counted the same as quiz and homework grades.

Homework: Homework will be assigned daily and homework will be taken up at the beginning of class on Thursday. Homework will be graded on completion and accuracy. Copying answers out of the back of the book is plagiarism and will be prosecuted.

Project: From the material presented in class or material in the book not presented, students will need to come up with a creative (i.e. not a term paper) project. These will be presented at the end of the course. Each student must come up with their own original creation and no two people can have the same project idea. More information will be given on this later in the semester.

Exams: No make-up exams will be given. Exams will be closed notes, closed book, and no calculator will be allowed unless otherwise stated by your instructor. 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.

Final Exam Date: Monday, May 8 at 8:00 am

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.

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.

Cell Phone Policy: Cell phones are not allowed in class. They can not be used as calculators on any assignment. Any phone ringing during class will be taken up until the end of class. If a phone rings during a test or quiz, the student will forfeit their right to finish said test or quiz.

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 2415 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 17	First Day of Classes
January 20	Last Day for Late Registration and Schedule Changes
February 1	12th Class Day
March 13-17	Spring Break
April 7	Last Day to Withdrawal from University or Drop Classes with a Grade of "W" (by 4 pm)
May 3	Last Day of Classes
May 4	Dead Day
May 5, 8-10	Final Exams
May 12	Commencement

Tentative Schedule-Subject to Change

	Tuesday		Thursday
Jan 17	Introductions Silly Stories	Jan 19	Change of Base
Jan 24	Historical Number Systems	Jan 26	Historical Number Systems
Jan 31	Modular Arithmetic	Feb 2	Modular Arithmetic
Feb 7	Cryptography	Feb 9	Fibonacci Numbers
Feb 14	Golden Ratio	Feb 16	Exam 1
Feb 21	Euclidean Geometry	Feb 23	Pythagorean Theorem
Feb 28	Golden Rectangle	Mar 2	Symmetry and Tiling
Mar 7	The Platonic Solids	Mar 9	Non Euclidean Geometry
Mar 21	Flatland	Mar 23	Flatland 2
Mar 28	Mobius Bands	Mar 30	Exam 2
Apr 4	Knot Theory	Apr 6	Knot Theory
Apr 11	Graph Theory	Apr 13	Graph Theory
Apr 18	Four Color Theorem	Apr 20	Four Color Theorem
Apr 25	Presentations	Apr 27	Presentations
May 2	Presentations		
May 8 (Monday)	Exam 3 During Final Exam Time		