

Sul Ross State University
Course Syllabus
MATH 5301-W01: Math History
Fall 2019

Instructor: Dr. Angela Brown

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Office Hours: 9:30am-11:30am M, 9am-10am and 2pm-3pm W, 3:30-5pm TR, others by appointment

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: To introduce students to a broad range of historical developments in mathematics. To be able to communicate mathematics through writing and presenting. To understand the role of civilization on mathematics. To gain a deeper appreciation of mathematical ideas.

Required Textbooks: *Great Moments in Mathematics Before 1650* ISBN 9780883853108 and *Great Moments in Mathematics After 1650* ISBN 9780883853115.

Checking out other math history books from the library is highly encouraged as well.

Other Equipment Needed: paper and pencils.

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: 10%

Discussion Boards: 10%

Midterm:15%

Paper: 25%

Project: 25%

Final Exam: 15%

Reading Assignments, Homework, and Discussion Boards: You will have daily reading assignments. These are to be read before you come participate in the discussion boards. The discussion boards will be set up where I will ask 2 questions per lecture that you must answer. You must also pose one question yourself and give a response to your classmates questions (if more than one student is enrolled) as well as mine.

Homework assignments are given to give you practice with the material that could be asked on exams. Homework will be taken up and questions can be posed in the discussion boards and will show up on the exams.

Exam: We will have two exams, one midterm and one final. These are not comprehensive. No make up exams will be given. A missed exam will earn a grade of 0. These will be open book and open notes, but you will have two hours to complete the exam, so be prepared!

Paper: You will have one paper that you will write for the class. This paper will be 12-15 pages in length typed and double spaced with 1 inch margins. You will need at least 5 sources, only one of which is allowed to be a website. Wikipedia is not allowed as a source! Everything should be properly sourced. For mathematics the standard formatting is the American Mathematical Society (AMS) formatting. It is very closely related to MLA format which I will also accept. This paper should be submitted to me through Safe Assign on Blackboard. The topic can be anything that is relevant to the course. Your topic must be approved by me before writing your paper. No two students can pick the same topic, so I will post topics as they are chosen. Each paper must contain a famous theorem and proof or problem and its solution. The rubric for how the paper will be graded is as follows:

- Content and Structure 35%
- Theorem and proof/Problem with solution 30%
- Grammar 15%
- Correct bibliography 10%
- Length 10%

Any plagiarism will be grounds for an automatic zero in the course and will be reported for disciplinary action. The paper will be due October 30

Project: Projects will be presentations on a topic of the students choice pertaining to math history. Topics must be approved by the instructor. Again, there cannot be a repeat of topics including those already written up for the paper and topics taken will be posted. These presentations are allowed to be power point type presentations, but they should have a creative slant to them. In other word, make them interesting and entertaining! The projects will be presented the last few class days and should be 20-30 minutes long. You should have your sources given at the end of your presentation just as you do for a paper. All presentations will need to be filmed and posted to Blackboard. Everyone will view each other presentations and as one of the discussion boards post questions that the presenter will need to answer.

The project will be graded as follows:

- Content/Historical Accuracy 40%
- Creativity 20%
- Grammar 10%
- Correct bibliography 10%
- Length 10%
- Discussion Board Post/Reply 10%

Attendance Policy: Students are expected login for class every week. 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.

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 3 weeks or more class sessions missed without assignments/discussion boards completed

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 3350 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.

Distance Education Statement: Students enrolled in distance education courses have equal access to the university’s academic support services, library resources, and instructional technology support. For more information about accessing these resources, visit the SRSU website. Students should submit online assignments through Blackboard or SRSU email, which require secure login information to verify student’s identities and to protect student’s information. Exams will submitted to the proctor to be given during the scheduled class time of the exam. The procedures for filing a student complaint are included in the student handbook. 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.

Important Dates:

Aug 26	First Day of Classes
Aug 29	Last Day for Late Registration and Schedule Changes
Sept 2	Labor Day Holiday
Sept 11	12th Class Day-Last Day to Drop a Course Without Creating an Academic Record
Nov 15	Last Day to Withdrawal from University or Drop Classes with a Grade of “W” (by 4 pm)
Nov 27-29	Thanksgiving Holiday
Dec 6,9-11	Final Exams

Tentative Schedule-Subject to Change

	Tuesday		Thursday
Aug 26	Introduction and Early Numbering Systems	Aug 28	Early Numbering Systems
Sept 3	Pythagorean Theorem	Sept 5	The first Crisis and the Resolution
Sept 10	Axiomatizing Math	Sept 12	Euclid's Elements
Sept 17	Archimedes	Sept 19	A Boost From Astronomy
Sept 24	Number Theory	Sept 26	Algebra
Oct 1	Early Computing	Oct 3	The poet Mathematician
Oct 8	Test 1	Oct 10	Fibonacci
Oct 15	Cardano and Tartaglia	Oct 17	Napier and Logarithms
Oct 22	Galileo and Kepler	Oct 24	Probability
Oct 28	Calculus	Oct 30	Series
Nov 4	Non Euclidean Geometry	Nov 6	Non Commutative Algebra
Nov 11	Set Theory	Nov 13	Axiomatic Systems
Nov 18	Metamathematics	Nov 20	Four Color Conjecture
Nov 25	Remaining Sections	Nov 27	Thanksgiving
Dec 3 2	Remaining Sections		

Final exam: Posted Starting December 9