TEXAS A&M
UNIVERSITY
COMMERCE

Math 580.01W
Topics History of Mathematics
Web Based Class
COURSE SYLLABUS: Spring 2016

Instructor: Stuart Anderson
Office Location: Binnion-321
Office Hours: MW: 3:00-4:30 p.m.
                    TR: 11:00 – Noon, 3:00 – 4:00 p.m.
                    Others, by appointment.
If you need to contact me, please do not hesitate to call during the times above. (If I am occupied with other students or meetings, please leave a message and I will contact you as soon as possible.) You may also email at any time and I will respond, usually within twenty-four hours.
Office Phone: 903-886-5957
Office Fax: 903-886-5945
University Email Address: stuart.anderson@tamuc.edu

COURSE INFORMATION

Textbook:

The 'textbook' for the course will be available online. Chapters will be posted periodically throughout the semester. You do not need to purchase a textbook. Additional reading available online can be found at the History of Mathematics Archives: http://www-groups.dcs.st-and.ac.uk/~history/index.html
and the Mathematical Association of America Convergence website:
http://www.maa.org/press/periodicals/convergence . Please explore these resources and use them regularly to enhance your knowledge of the topics we cover.

Course Description

A chronological presentation of historical mathematics. The course presents historically important problems and procedures. Prerequisites: Math 331 (Discrete Mathematics).

In the 1980's, the Mathematical Association of America and other groups began to promote the use of the history of mathematics in mathematics classrooms. This initiative has had beneficial results for many students and instructors. Knowing how your subject evolved and the original problems that led to the development of mathematical ideas can transform the way mathematics is perceived. Indeed, knowledge of the history of mathematics can revolutionize the way you learn, practice, teach and promote

mathematics. This course will cover some history, and some mathematics. However, it also aims to provide you with the tools to continue learning and making connections after the course ends. You will depart with a fairly extensive bibliography and familiarity with history of mathematics journals and resources.

Book Review: You will read at least one book selected from the posted list and write a review of that book. The book review(s) will count 20% of your final grade.

Report on Journal Articles: As a student at Texas A&M – Commerce, you have access, through a Library login, to www.JSTOR.org. The site is a repository of many academic journals, several specifically for history of mathematics topics. (You will occasionally be referred to articles that can be found on JSTOR in discussion.) You will be asked to locate several articles (probably about five) that are related to a specified topic. You will then summarize and write a report on the topic. The Report on Journal Articles will count 20% of your final grade.

Class Reports: In this class, you will be exploring a great number of sources in finding information. It is often the case that in searching for one thing you find another thing that may be of great interest. If this happens, report it to the class; make comments, spark discussion. These shared topics can help everyone leave the class with a broader view of the course, and interesting pieces of information that may be later used. (This is kind of a "class participation" component.) The class reports will count 10-15% of your final grade.

Homework: Homework will usually consist of problems, proofs, or discussions. These will be posted, with instructions, as we progress through the course. Your work can be scanned or typed into a Word document, then submitted using the Dropbox utility. Instructions will be given when these activities are assigned. The homework will count 15-20% of your final grade.

Final: The final exam will be given on Monday, May 9, 2016 at between the hours of 6:30 and 8:30 p.m. I am anticipating that the exam will consist of three parts
Part I will be short answer and will be submitted through eCollege.
Part II will be problems and will be scanned and sent as an attachment.
Part III will be essays that will be submitted through Dropbox. The final exam will count 25% of your final grade.

Other: In a course of this nature that is so rich in topics, other ideas for interesting work will arise. These may arise out of our discussions or ideas that occur as we cover the material. For these worthy projects, I want to reserve up to 10% of your final grade. (If nothing comes up, I can distribute this portion of the grade to other parts listed above.)

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

Communication:

In this course, e-mail is an essential method of correspondence and supplement to lectures. Needless to say, students are expected to check email regularly in daily fashion (a couple of times a day). You should feel free to contact the instructor via email with questions, requests or problems that were not or could not be addressed clearly in online lessons. You have access to an email account via myLeo - all my emails sent from eCollege (and all other university emails) will go to this account. Additionally, you should email me via the eCollege email system or your myLeo email since our spam filters will catch yahoo, hotmail, etc. and I will not check for your email in spam. If you feel comfortable doing so, you may post class related questions in the Virtual Office. It often happens that your classmates will have the same question, or that clarifying comments will result. Emails of a personal nature should be sent to my individual address (listed above). We may also speak by phone.

COURSE AND UNIVERSITY PROCEDURES/POLICIES

Course Specific Procedures

It is expected that you will give regular and active attention to maintaining progress in this class. No late tests will be given. No late homework will be graded. Cheating of any kind will result in an F in the course.

It is my hope that no one will want to drop this course. However, if you decide to drop, please check the university calendar for applicable deadlines.

A student wishing to withdraw from all courses before the end of a term for which he/she is registered must clear his or her record by filing an application for voluntary withdrawal. This action must be taken by the date stated in the Academic Calendar as the last day to drop a class or withdraw. Any student who withdraws from the university is subject to the conditions outlined in the section regarding Scholastic Probation or Suspension in the university catalog. It is the student's responsibility to withdraw from classes if he or she does not plan to attend during the semester in he/she has enrolled.

University Specific Procedures

ADA Statement

Students with Disabilities
The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that

provides for reasonable accommodation of their disabilities. If you have a disability requiring an accommodation, please contact:

Office of Student Disability Resources and Services
Texas A&M University-Commerce
Gee Library- Room 132
Phone (903) 886-5150 or (903) 886-5835
Fax (903) 468-8148
StudentDisabilityServices@tamuc.edu

Student Conduct

All students enrolled at the University shall follow the tenets of common decency and acceptable behavior conducive to a positive learning environment. (See *Code of Student Conduct from Student Guide Handbook).*

COURSE OUTLINE / CALENDAR

Week 1 – The history of number systems.
Week 2 – The Babylonians and Egyptians.
Week 3 – The Greeks I.
Week 4 – The Greeks II.
Week 5 – The Arabs.
Week 6 – Transition to Europe.
Week 7 – Fibonacci and Cardano.
Week 8 – The Scientific Method.
Week 9 – Galileo and Descartes.
Week 10 – Calculus.
Week 11 – Non-Euclidean Geometry and Set Theory.
Week 12 – Twentieth Century Mathematics.
Final Exam – May 9. (It is possible that some revision of the above dates and material may occur as the semester progresses.)