

Math 380: Math History for Middle School Math Majors (21063) COURSE SYLLABUS: Spring 2021, 3 semester credit hours

INSTRUCTOR INFORMATION

Instructor: Dr. Pamela S. Webster

Office Location: Binnion 315

Office Hours: M 1:00pm – 3:00pm;

T/R 12:30pm – 1:30pm & 3:15pm – 3:45pm; and by appointment 903-886-5950 **Office Fax:** 903-886-5945

University Email Address: Pamela.Webster@tamuc.edu

Preferred Form of Communication: Email

Communication Response Time: Within 48 hours, unless over a weekend, holiday, or

during school cancellation, such as bad weather days.

COURSE INFORMATION

COVID-19 STATEMENT

Face Coverings Policy:

Office Phone:

A&M-Commerce requires the use of face-coverings in all instructional and research classrooms/laboratories. Exceptions may be made by faculty where warranted. Faculty have management over their classrooms. Students not using face-coverings can be required to leave class. Repetitive refusal to comply can be reported to the Office of Students' Rights and Responsibilities as a violation of the student Code of Conduct.

Student Illness:

Students should not attend class when ill or after exposure to anyone with a communicable illness. Communicate such instances directly with your instructor. Faculty will work to support the student getting access to missed content or completing missed assignments.

Materials - Textbooks, Readings, Supplementary Readings:

Text & Supplement: Textbook(s) Required: To be provided in pdf format: MATHEMATICS HISTORY FOR MATH 380, 2014 Edition, by Burton and Anderson. ISBN 9781308255873. The entire text, except for selected parts of Chapters 1 and 13, will be covered. Your reading of the text topics should be at least one day ahead of the related lectures.

Supplies Needed: A three-ring binder or folder for handouts. You may also want access to a ruler (metric and standard), stapler, and colored pencils.

Please also use only pencils (no pens) on all exams. You may have a need during the semester to print something, so you'll need access to printing supplies/a printer.

Each student's average for the course will be posted in your MyLeo account. To access the course, you will go into MyLeo and the "Apps" and look for the app for "MyLeo Online (D2L Brightspace)". You should see directions to choose your course from the course grid that looks like:

Once you have chosen the correct course, you will be able to see your

"grades" option.

<u>Calculators:</u> A calculator is recommended during this course. Some material may be worked best with a graphing calculator. <u>I highly recommend a TI-83 or TI-84</u> be used when appropriate throughout the course. If you chose to use a different calculator, please note that the instructor *will not be a good resource for you to be able to use your calculator.*

Scanner: A scanner or scan app MUST be used for uploading homework; NOT the camera on your phone or tablet. Homework and other documents should be loaded as .pdf files, NOT as .jpg files. This allows for an easy upload and download and clean documents (no black outlines/edges, etc.) I have personal experience with the free app Cam Scanner, but there are several apps available. As long as it will load to MyLeo as a .pdf and there aren't a lot of dark edges or shadows, you should be okay.

Course Description:

<u>Math History for Middle School Math Teachers:</u> A survey of the history of mathematics. Attention will be given to the origin, development and importance of mathematical ideas. **Prerequisites:** "C" or better in Math 301 or consent of Instructor.

Student Learning Outcomes: Upon successful completion of this course, students will:

- 1. Demonstrate in writing and problem solving an awareness of how certain mathematical ideas developed and why they are important.
- 2. Recognize, analyze, describe, and represent data in various historical forms.
- 3. Demonstrate problem solving ability that includes but it not limited to knowledge of number systems, geometry, and algebra.
- 4. Make connections between topics from the course and applications to teaching mathematics.
- 5. Demonstrate historical computation techniques
- 6. Judiciously use appropriate technology to achieve these outcomes.

COURSE REQUIREMENTS

Minimal Technical Skills Needed:

Students must have a minimal amount of technical skills to be successful in this course. Due to the current public health situation, all homework and content will be available through the D2L course shell. In addition, students will upload their completed work into D2L for digital/online grading. Students will be expected to use a scanner or a scan app to create a single .pdf file that is clean, clear, brightly lit, and doesn't have a lot of background items in the scan. Thus, students must have a minimal amount of technical skills to be successful in this course. Skills needed include, but are not limited to: using the online learning system (D2L) in MyLeo; using Microsoft Word, Excel, and PowerPoint; use of a scanner/scan app and printer; and the use of email.

Instructional Methods:

Instructional Methods: Instruction will include lectures, demonstrations and models, and some group and individual work, based on the time available. Hands-on activities and several types of manipulatives will be used throughout. This course will be taught as a lecture course with activities mixed throughout. In particular, students will be expected to work on projects and activities that deal with statistical software and real world applications of the material learned.

Student Responsibilities/ Tips for Success in the Course:

Attendance/Participation: I will be taking roll every class. All students are expected to be present, and attendance will be reflected in your Daily Work grade. In addition, students must participate in class each day in order to receive full points for this category. If you miss a class, come see me for any missed assignments. **Please do not approach me as I am beginning a class period**, unless it is an emergency, so that we might start ON TIME. Please be in your seat and ready to work when class begins. **Class Participation:** In addition, students must participate in class each day in order to receive full points for this category. In some instances, logging into D2L and completing assignments will also be used to determine part of your attendance. Students need to actively participate in class and/or online to receive credit.

Amount of weekly study: The "rule of thumb" for a math class is that for every hour of class time, you should spend approximately 3 hours of study time outside of the classroom. This study time may include a variety of activities, including but not limited to: re-organizing notes; working on homework; participating in a study group, tutoring, workshops, or Supplemental Instruction session; attending review sessions; and studying for quizzes and exams.

GRADING

Grading Policy:

<u>Type of Assessment:</u> <u>Portion of the Grade:</u>

Daily Work (Homework, Quizzes, etc.) 15%
Teaching Assignments/Projects/Labs 20%
Tests (a total of 2 exams) 40%
Comprehensive Final 25%

Grading Scale: Grades will be assigned using the standard scale:

A = 90-100+, B = 80-89, C = 70-79, D = 60-69, F = 59 or below

Types of Grades/Assessments:

Daily Grades: The daily grade is composed of several categories of assessments, including attendance, participation, homework, and quizzes. **Attendance/Participation**: I will be taking roll every class. All students are expected to be present, and attendance will be reflected in your Daily Work grade. In addition, students must participate in class each day in order to receive full points for this category. **Homework:** Homework will be assigned most class periods. **It is** extremely important for you to work all homework in order to be prepared for the exams. We will also be working on certain supplemental assignments which will often have to be completed as homework. The total number of assignments that are completed and turned in (punctually) by the student will be reflected in the Daily Work grade. A grade will be taken on select problems from each homework assignment. In general, late work will not be accepted. A missed homework assignment or two, due to legitimate absence, will not adversely affect your grade as long as you have kept up with all other assignments. **Quizzes:** Both individual and group quizzes may be given occasionally. Since regular attendance is expected, In general, NO make-up quizzes will be given. This class covers enough material that there is no time to be missed that is a "good time", and each quiz will be over material to be emphasized on exams. Quizzes will be averaged into your Daily Work grade.

In addition, please ensure that your name is written on all homework pages so that, when graded, you will receive proper credit for your work. Please, no spiral "chads" hanging from your homework pages, etc. Upon completing an assignment, students should scan and upload all work into D2L, per their instructor's directions, as .pdf files. See information below about scan apps.

Projects/ Presentations/Reflections: Special projects will be assigned for students to work on outside of class. These projects will vary in their scope and should be completed neatly and punctually. In addition, you will be expected to keep a record of your reflections on the class and its material, as well as your reactions and future uses for the material. Each time you need to do a reflection, a prompt will be given to the class. You will need to keep up with your completed reflections in a separate location from notes, homework, etc. The reflections will be taken up at various, unannounced times throughout the semester. The reflections must be turned in when requested or they will not be graded. In general, late projects and reflections will not be

accepted without a documented university excuse. Further information about the projects and reflections will be communicated to you during the semester. Regular attendance will assist students with being able to participate in these activities and projects. In addition, there will be a presentation grade at the end of the semester that is based on research you have done throughout the semester.

Tests: Tests will be given after a complete chapter or subject area. These exams will be announced at least a week in advance. **CELL PHONES and other electronic devices must be turned off and stored out of the student's reach.** The only electronic device allowed during tests and quizzes is an approved stand-alone calculator, and only with the instructor's consent. Note: Calculators that solve problems for students, including but not limited to the TI-NSpire, TI-89, Casio Prizm, Casio Touch, or higher, are **NOT** allowed to be used for exams.

There will be TWO "chapter" exams which may consist of a variety of problems and short answer questions. However, students should expect the bulk of the questions on each test to be problem solving. Partial credit may be given on exams IF all work is neatly shown so that I can easily determine the student's mistakes. When pictures are drawn, students should be careful that figures are clearly marked and easily understood. Explanations should be explicit and understandable to the audience given. Items should NOT need interpretation if full credit is to be given. Tentative test dates (although not in stone) are: Week of March 1st and April 5th. See the schedule below for details.

Students will take exams either with the instructor, in a face to face approved testing center, or using online proctoring services, as directed by the instructor. Details will be provided when necessary. For the online proctored exams, students must have the required technology, such as a computer and stable internet connection, during the exam and a web camera or a built-in camera on a laptop/tablet/phone connected to the testing center proctor(s). A photo ID will also be required, whether students test in person or online. In addition, a printer and scanner will also be helpful for such testing arrangements. All online proctored exams will be recorded for instructors to review and be kept as a record for the math department. Immediately after the exam, students must scan all their written work with a scanner or scan app from their personal device to a single .pdf file and submit with an honesty statement along with their work to D2L.

Replacing a Low Test Grade: I realize that at times throughout the semester, emergency situations may arise that affect a student's performance on an exam or even prevent a student from attempting a test. However, in general, make-up exams will NOT be given unless confirmed ahead of time and accompanied by a documented, University excused absence. Therefore, I am willing to replace the student's ONE lowest exam grade with the student's grade on the corresponding portion of the final exam, provided the grade on that section of the final exam is higher. This provision will only be applied to ONE exam, so students should make every effort to attempt and be well-prepared for all exams. If a student does not require this option, and they are content with their grade in the course after exam 2 and their presentations, they may choose to opt out of taking the final exam after Week 14 is completed (all exams and projects). Effectively, their course will be complete when they have completed Week 14, and the

instructor will record the student's grade out of 75 percentage points, instead of the 100 percentage points that come with using the final exam as 25% of the student's grade.

OPTIONAL Final Exam: Our final is an optional comprehensive exam. Students must inform the instructor whether or not they intend to take the final exam, based on their grade after week 14. If the student is happy with their course average after completing all exams and projects, the instructor will record the student's grade out of 75 percentage points, instead of the 100 percentage points that come with using the final exam as 25% of the student's grade. According to the Schedule of Classes, our final exam is scheduled for: **Tuesday, April 27th, from 1:15pm – 3:15pm.** NOTE: SPECIAL TIME; NOT CLASS TIME.

TECHNOLOGY REQUIREMENTS

Instructor Specific Technology Requirements:

- **Calculator:** A TI-83 or TI-84 calculator (or equivalent) is RECOMMENDED for this course.
- **Internet access is REQUIRED**. Projects, tests, etc., may be given online.
- A webcam OR a built-in camera on a laptop/tablet/phone is REQUIRED. As long as our course remains a face to face course, students will be expected to test face to face. However, there is a possibility that a student may be unable to attend class face to face or that the course may become an online course. In that instance, testing will still be proctored, either face to face or online. If the proctoring is offered in an online manner, students will need to be able to identify themselves to the proctor, as well as demonstrate the academic integrity of their surroundings while testing; thus, a webcam or equivalent built-in camera on a device is required for proctored online testing. In addition, it may be necessary to communicate with your instructor through an online video chat service, such as Zoom or Skype; at that time, students will need to be able to capture their own image and share with the teacher.
- The Word suite of software, or an equivalent software, is REQUIRED. (Microsoft Word/Excel/Power Point preferred/compatibility required). Files should be submitted as .pdf when possible.
- **Email access is REQUIRED**. Please utilize your A&M-Commerce (____@leomail.tamuc.edu) email address.
- Scanner: A scanner or scan app MUST be used for uploading homework; NOT just the camera

on your phone or tablet. Homework and other documents must be loaded as a single .pdf files, **NOT** as .jpg files. This allows for an easy upload and download and clean documents (no black outlines/edges, etc.) I have personal experience with the free app Cam Scanner

(a video will be available in the "content" page in D2L), but there are several apps available. Many are free, including the "basic" version of Cam Scanner, even if they ask for money... you should still be able to use the free version for this course. As long as it will load to MyLeo as a .pdf and there aren't a lot of dark edges, extra items in the background, or shadows on the pages, you should be okay.

MyLeo Online Learning Management System (LMS):

D2L in MyLeo: All course sections offered by Texas A&M University-Commerce have a corresponding course shell in the. Below are technical requirements

LMS Requirements:

https://community.brightspace.com/s/article/Brightspace-Platform-Requirements

LMS Browser Support:

https://documentation.brightspace.com/EN/brightspace/requirements/all/browser_support.ht m

YouSeeU Virtual Classroom Requirements:

https://support.youseeu.com/hc/en-us/articles/115007031107-Basic-System-Requirements

ACCESS AND NAVIGATION in MyLeo/D2L:

MyLeo Support: You will need your campus-wide ID (CWID) and password to log into your course in D2L. If you do not know your CWID or have forgotten your password, contact the Center for IT Excellence (CITE) at 903.468.6000 or helpdesk@tamuc.edu.

Note: Personal computer and internet connection problems do not excuse the requirement to complete all course work in a timely and satisfactory manner. Each student needs to have a backup method to deal with these inevitable problems. These methods might include the availability of a backup PC at home or work, the temporary use of a computer at a friend's home, the local library, office service companies, Starbucks, a TAMUC campus open computer lab, etc.

COMMUNICATION AND SUPPORT

If you have any questions or are having difficulties with the course material, please contact your instructor:

Interaction with Instructor Statement:

Students will be expected to interact with the instructor(s) in class or via electronic means in an appropriate manner. All instructor contact information is listed on this syllabus and should be used. Please use email to facilitate a quick response.

Technical Support:

If you are having technical difficulty with any part of Brightspace, please contact Brightspace Technical Support at 1-877-325-7778. Other support options can be found here: https://community.brightspace.com/support/s/contactsupport

COURSE AND UNIVERSITY PROCEDURES/POLICIES

Course Specific Procedures/Policies:

Getting Help Outside of Office Hours: The Math Skills Center, located in Binnion 328, is open Monday through Thursday 10am – 5pm, and Friday 10am – 2pm. For information on which tutors would be best to help, and when they are working, feel free to see me or the bulletin board outside the lab. Mach III/TRIO Services, located in the Halladay Student Services building, Room 300, is available to students who meet certain criteria, such as being a first-generation college student, etc. Contact TRIO at 903-886-5833. The Academic Success Center offers tutoring in the library, as well as Supplemental Instruction. Their hours can be found on the university web site.

In addition, each student has available tutoring hours through the online tutoring service, tutor.com. Additional details can be found here: http://www.tamuc.edu/campusLife/campusServices/academicSuccessCenter/tutorInfo/TutorCom.aspx

Comments: I will do my best to make a quality presentation each day and, in return, I expect that you will do your best to learn the material presented in class and in the text. This course will be taught as hands-on as possible, and student participation is necessary daily. It is important that you be actively engaged in any group activities. Questions are welcome in the classroom, and I will gladly schedule outside help sessions if necessary. I know that together, these efforts can contribute significantly to your education in this class.

Syllabus Change Policy:

The syllabus is a guide. Circumstances and events, such as student progress, may make it necessary for the instructor to modify the syllabus during the semester. Any changes made to the syllabus will be announced in advance.

University Specific Procedures:

Face Coverings Policy:

A&M-Commerce requires the use of face-coverings in all instructional and research classrooms/laboratories. Exceptions may be made by faculty where warranted. Faculty have management over their classrooms. Students not using face-coverings can be required to leave class. Repetitive refusal to comply can be reported to the Office of Students' Rights and Responsibilities as a violation of the student Code of Conduct.

Student Illness:

Students should not attend class when ill or after exposure to anyone with a communicable illness. Communicate such instances directly with your instructor. Faculty will work to support the student getting access to missed content or completing missed assignments.

Student Conduct:

All students enrolled at the University shall follow the tenets of common decency and acceptable behavior conducive to a positive learning environment. The Code of Student Conduct is described in detail in the Student Guidebook (See link below). All students are expected to exercise self-discipline and respect for the rights of others at all times. Behavioral disruptions that interfere with the business of the classroom or with an individual's ability to learn may be referred to the Dean of Students. Please be sure that cell phones and other electronic devices are off or silent. If you expect to have to get up, please select an inconspicuous position to minimize disruptions. Courtesy to others is important. That means respecting the opinions of others, and in general, doing your part to make this a positive learning environment for all students. Food and beverages, while acceptable for our class, should be consumed as quietly as possible, and you must clean up after yourself.

http://www.tamuc.edu/Admissions/oneStopShop/undergraduateAdmissions/studentGuidebook.aspx

Students should also consult the Rules of Netiquette for more information regarding how to interact with students in an online forum: https://www.britannica.com/topic/netiquette

Appropriate classroom behavior is required to attend this class. *All cell phones and other such devices must be put on silent or turned off during class.* Phones are a distraction for me and the other students in the class. NOTE: THIS INCLUDES BLUETOOTH AND OTHER DEVICES THAT ARE PLACED IN THE EAR. All people will be treated with respect and I will not allow talking that will disrupt my lectures. If disruptions occur during class lectures, you will be asked to leave class and will earn a zero on any applicable grades for that class period. Serial disrupters will be asked dealt with individually, including referral to the Dean of Students.

TAMUC Attendance Policy:

For more information about the attendance policy please visit the <u>Attendance</u> webpage and <u>Procedure 13.99.99.R0.01</u>.

http://www.tamuc.edu/admissions/registrar/generalInformation/attendance.aspx

http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/13students/academic/13.99.99.R0.01.pdf

Academic Integrity:

Students at Texas A&M University-Commerce are expected to maintain high standards of integrity and honesty in all of their scholastic work. For more details and the definition of academic dishonesty see the following procedures:

<u>Undergraduate Academic Dishonesty 13.99.99.R0.03</u>

http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/13students/undergraduates/13.99.99.R0.03UndergraduateAcademicDishonesty.pdf

<u>Graduate Student Academic Dishonesty 13.99.99.R0.10</u>

http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/13students/graduate/13.99.99.R0.10GraduateStudentAcademicDishonesty.pdf

As stated in the Student Handbook, academic dishonesty in the class will not be tolerated.

If any materials or equipment are found to be available to the student at any time which is considered inappropriate by the instructor, the very fact that the materials are inappropriately available to the student is grounds for an accusation of academic dishonesty. The instructor reserves the right to fail the student for the assignment or the course, as well as report the student to the Academic Dean and/or the Dean of Students, and the Committee for Academic Retention in Teacher Education. The above committee and deans have the ability to terminate a student's participation in the teacher education program. They also have the ability to terminate the student's enrollment in the University. The instructor considers this an extremely serious matter. Please make sure you are not in a situation that could be viewed negatively.

I find that a majority of students are honest in doing their school work. However, we must take measures to protect the academic integrity of the classroom. I have a NO TOLERENCE policy for cheating and if you are caught cheating, you will probably fail that portion of the course, as well as possibly the entire course. Cheating in this course is defined as (but not limited to) the following:

- Giving or receiving answers during an exam or quiz.
- Viewing the exam or quiz answers of nearby classmates.
- Having notes/practice work/etc. available during quizzes or tests.
- Possession or access to test items before the test is given.
- Deception in getting an excused absence to obtain the undeserved opportunity to makeup work.
- Use of cell phones or text messaging technology/other devices during exams or quizzes. You may not use the calculator on your cell phones.
- Improper citations in written works, or using another person's ideas and words as your own without giving proper credit.
- **Any** method, no matter how well rationalized or accepted, which gives an unfair advantage and/or improves a person's grade by any means other than study and skillful performances on exams and/or other assignments.

Students found guilty of an act of academic dishonesty in this course will be subject to receiving an "F" in this course, as well as the below-mentioned disciplinary actions, as deemed appropriate.

Specific additional disciplinary action for these offenses may include any combination of the following:

Point deduction of an assignment Failure of an assignment A grade of zero for an assignment Failure of this course

Referral to the Academic Integrity Committee or department head for further action Referral to the Dean of the College of Science and Engineering, and other Deans as appropriate

Referral to the University Discipline Committee

Students with Disabilities -- ADA Statement:

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 162
Phone (903) 886-5150 or (903) 886-5835
Fax (903) 468-8148

Email: <u>StudentDisabilityServices@tamuc.edu</u>
Website: <u>Student Disability Resources & Services</u>

http://www.tamuc.edu/campusLife/campusServices/studentDisabilityResourcesAndServices/

Non-Discrimination Notice:

Texas A&M University-Commerce will comply in the classroom, and in online courses, with all federal and state laws prohibiting discrimination and related retaliation on the basis of race, color, religion, sex, national origin, disability, age, genetic information, or veteran status. Further, an environment free from discrimination on the basis of sexual orientation, gender identity, or gender expression will be maintained.

Concealed Carry Statement:

<u>Texas Senate Bill - 11</u> (Government Code 411.2031, et al.) authorizes the carrying of a concealed handgun in Texas A&M University-Commerce buildings only by persons who have been issued

and are in possession of a Texas License to Carry a Handgun. Qualified law enforcement officers or those who are otherwise authorized to carry a concealed handgun in the State of Texas are also permitted to do so. Pursuant to Penal Code (PC) 46.035 and A&M-Commerce Rule 34.06.02.R1, license holders may not carry a concealed handgun in restricted locations.

For a list of locations, please refer to the <u>Carrying Concealed Handguns On Campus</u> document and/or consult your event organizer.

Web url:

http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/34 SafetyOfEmployeesAndStudents/34.06.02.R1.pdf

Pursuant to PC 46.035, the open carrying of handguns is prohibited on all A&M-Commerce campuses. Report violations to the University Police Department at 903-886-5868 or 9-1-1.

COURSE OUTLINE/CALENDAR

Topics Covered (tentative schedule):

- Week #1 (Jan. 11 15) Syllabus, Introduction and Getting Started/Chapter 1, Start Ch. 2
- Week #2 (Jan. 18 22) MLK DAY (school closed) & Finish Chapter 2
- Week #3 (Jan. 25 29)- Chapter 3; assign Project #1
- Week #4 (**Feb. 1 5**) Begin Chapter 4
- Week #5 (Feb. 8 12) Complete Chapter 4
- Week #6 (**Feb. 15 19**)- Begin Chapter 5; assign Project #2
- Week #7 (**Feb. 22 26**)- Complete Ch. 5 & Begin Ch. 6;
- Week #8 (Mar. 1 5) Assign Reflection #1 Review & Exam 1;
- Week #9 (Mar. 8 12) Complete Ch. 6
- Week #10 (Mar. 15 19) Chapter 7
- Week #11 (Mar. 22 26) Chapter 8 & Parts of Chapter 10; assign Project #3
- Week #12 (Mar. 29 Apr. 2)- Parts of Chapters 11 & 12; Parts of Chapters 11, 12 & 13;
- Week #13 (**Apr. 5 9**)- Review & **Exam 2**
- Week #14 (**Apr. 12 16**)- **Presentations**; assign Reflection #2
- Week #15 (Apr. 19 23) Review for Final
- Week #16 (Week of April 26th) OPTIONAL FINAL EXAM <u>Tuesday, April 27th, 1:15pm 3:15pm.</u>
 Note: Special Time; not during class time. Student must let teacher know if they will test or not, based on grade after Exam #2/Week 14 projects and activities.

Remaining enrolled in this course constitutes acceptance of all policies contained in this syllabus.

Any changes to this syllabus and/or schedule will be communicated directly to you in class by the instructor. You are responsible for being aware of any such changes.

Good luck and work hard!!

Mission for College of Science and Engineering: Innovation and Discovery Mission for the Department of Mathematics: Discovering the Keys to Success