Math 362.01S, .41R, .71R
COURSE SYLLABUS: Spring 2019

INSTRUCTOR INFORMATION

Instructor: **Debra Newton, Mathematics Instructor**
Office Location: **Binnion 319**
Office Hours: **MW 1:00-2:00PM, TR 11:00-12:30, or other times by appointment.**
Office Phone: **903-886-5954**
Office Fax: **903-886-5945**
University Email Address: **Debra.Newton@tamuc.edu**
Preferred Form of Communication**: Email**
Communication Response Time: **Within 48 hours M-F**

COURSE INFORMATION

Materials – Textbooks, Readings, Supplementary Readings

Textbook(s) Required: To be determined.
Software Required: None
Optional Texts and/or Materials: Please get a **Binder** to keep and organize all notes and course materials. A Texas Instruments (TI-83 or TI-83 Plus) **graphing calculator** for this course is highly recommended. All exams must be completed in **pencil.**

Technology Requirements: The graphing calculator of TI 83/TI 84 or equivalent will be highly recommended. Calculators other than Texas Instruments calculators may be used but classroom instruction on calculators will be given for TI equipment only. **Note: Calculators that solve problems for students, including but not limited to TI-Nspire, TI 89 or higher, Casio Prizm, Casio Touch or higher are **NOT** allowed to be used for this class. ** Students are also required to clear the memory of graphing calculators before and after each exam.

Calculator Loan Program: The Mathematics Department has set up a calculator loan program to support students. Students can borrow a calculator for a semester with a fee ($10 to $15 for TI-83/84). It is first come, first served basis.

The *syllabus/schedule are subject to change.*

Course Description

In this mathematics course, the following topics will be covered: advanced algebra, trigonometric functions and relationships, limits, rate of change, derivative concepts, extrema and points of inflection, accumulating change, concepts of the definite integral, finite difference equations. Technology will be a vital part of the course. Prerequisite: "C" or better in Math 361.

Course Content:

Modeling is a process that involves using mathematical concepts, functions, and structures to describe and explain real world phenomena or situations. Hands-on activities will intertwine the mathematics concepts with science concepts (such as motion) and technology. Be prepared to discuss the *WHY* more than the *HOW*. This is important so that you will be able to **explain** to your future students the topics we will cover.

Student Learning Outcomes: Upon completion of this course, the successful student will be able to:

1. Demonstrate an understanding of the connections between the geometric, graphic, numeric, and symbolic representations of various functions including trigonometric.
2. Recognize, analyze , describe, and represent data in various functions.
3. Understand the effects of transformations on graphs of functions.
4. Understand rates of change and how they apply to different physical scenarios and data, including the transition to derivative concepts.
5. Understand the role of the derivative in various applications.
6. Judiciously use of appropriate technology to achieve these outcomes.

COURSE REQUIREMENTS

Minimal Technical Skills Needed

Students need to check their e-mail regularly with the address that they have provided to the instructor for class announcements. Regular access a computer and the internet will be needed for certain homework assignments.

Instructional Methods

The goal of this course is to develop understanding of the mathematics covered. We are constantly going to deal with WHY more than HOW. As a future teacher, you must be able to explain mathematics to your students, not just show them how to carry out the mathematical procedures. We will focus on underlying structures and development of ideas. In addition, problem solving is a major component of this course. As a future

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mathematics teacher, you need to become familiar with and skilled in various types of problem solving techniques that are commonly used in mathematical thinking. Class consists of various styles of presentation and interaction. You will be active participants regardless of the mode of instruction. You should come to class ready to participate, both in terms of preparation as assigned and with a positive attitude toward class and colleagues.Student Responsibilities or Tips for Success in the Course

GRADING

Final grades in this course will be based on the following scale:

A = 90%-100%
B = 80%-89%
C = 70%-79%
D = 60%-69%
F = 59% or Below

Daily Work

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. Selected papers will be turned in for a grade. If you work on these assignments in a group, one paper should be handed in for the entire group, with all names clearly marked. 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, **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 averaged into your Daily Work grade.

Attendance: I will be taking roll every class. All students are expected to be present, and attendance will be reflected in your Daily Work grade. 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.

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Teaching Assignments/Projects/Labs: Ocassionally, I will assign special projects for students to work on outside of class, sometimes in groups. These projects will vary in their scope and should be completed neatly and punctually. In addition, you will be expected to perform reflection activities. These will be typed papers that concentrate on a given prompt and are turned in at specific points of time in the semester. The reflections must be turned in when requested or they will not be graded. Late reflections will not be accepted. In addition, this course comes with a lab, which is scheduled the last 30 minutes of each class period. Some class periods will observe these lab periods while other class periods will consist entirely of lab activities and other class periods will consist entirely of covering material. During these labs, various activities will be set up throughout the semester for you and your classmates to work on, often in groups. It is the responsibility of the students to complete the labs, even if they do not complete them during the lab time. Therefore, please be certain to get what you need during the class period so that you will be able to complete the Lab if you run out of time in the classroom.

Assessments

Tests: Tests will be given after a complete chapter or subject area. There will be two or three unit 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 Schedule: The following dates are subject to change.
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Test 1 – Week of Wednesday, February 13
Test 2 – Week of Wednesday, March 13
Test 3 – Week of Wednesday, April 24
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Replacing a Low Test Grade: **No make-up exams will be given without prior notice of a university excused absence***. At times throughout the semester, emergency situations may arise that affect a student's performance on an exam or even prevent a student from attending on an exam day. Students can replace the lowest exam grade with their 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 be present and well-prepared for all exams.

Final: Our final is a comprehensive exam. The Class Schedule gives our time to have our final exam as **Wednesday, May 8th, at 10:30am – 12:30pm. Do not expect a makeup exam for the final.**

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Grading Policy:

Section:	Total:
Daily Work/Teaching Assignments/Projects/Labs	25%
Tests (2 or 3 exams)	50%
Comprehensive Final	25%

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.

ATTENDANCE and CONTINUAL ENROLLMENT POLICY: Class attendance is expected and a MUST to pass this course, and it is your responsibility to attend punctually and regularly. Roll will be taken every class period and excessive absences will result in being dropped from this course.

TECHNOLOGY REQUIREMENTS

LMS

All course sections offered by Texas A&M University-Commerce have a corresponding course shell in the myLeo Online Learning Management System (LMS). 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.htm

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

ACCESS AND NAVIGATION

You will need your campus-wide ID (CWID) and password to log into the course. 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.

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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.

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

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.

COURSE AND UNIVERSITY PROCEDURES/POLICIES

Getting Help Outside of Office Hours: The Math Skills Center, located in Binnion 328, is open Monday and Wednesday, 8am – 8pm; Tuesday and Thursday, 8am – 6pm; Friday,   8am – noon. I am the director of the center and I do my best to place quality tutors in the lab. However, not all tutors are trained in techniques used in the Math Education courses. 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.

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

Students who are absent more than 6 times, for whatever reason, are subject to the instructor dropping them from the course. Six absences in this course constitutes missing 1/5 of the course, which is a very large fraction of material for a student to miss. Any student who is close to this number of absences should come to the instructor before they accumulate four absences in the course.

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Supplemental Instructions: Throughout the course of your work in this class, you will be given additional written instructions that govern the look, content and scope of your projects. These supplemental instructions have the same force as the syllabus for grading purposes.

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

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.
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

TAMUC Attendance

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

Academic Dishonesty: 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, 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.

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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 TOLERANCE policy for cheating and if you are caught cheating, you will fail that portion of the course, as well as 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 make-up work.
- Use of cell phones or text messaging technology 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.

<u>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 above-mentioned disciplinary actions.</u>

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 Education and Human Services, and other Deans as appropriate
Referral to the University Discipline Committee
Communication of student's behavior to the Teacher Certification Office as constituting a reason to bar student from entering into or continuing in a teacher certification program (Procedures A 13.04, 13.12, 13.31, and 13.32

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:

[Undergraduate Academic Dishonesty 13.99.99.R0.03](#)

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

Graduate Student Academic Dishonesty 13.99.99.R0.10

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

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: studentdisabilityservices@tamuc.edu

Website: Office of Student Disability Resources and Services

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

Nondiscrimination 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.

Campus Concealed Carry Statement

Texas Senate Bill - 11 (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 Carrying Concealed Handguns On Campus document and/or consult your event organizer.

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Web url:
http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/34SafetyOfEmployeesAndStudents/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

Tentative Schedule for Math 362:
Week 1 (Jan. 14- 18)   Syllabus & Review of Algebra/Trig.
Week 2 (Jan. 21- 25)   Limits
Week 3 (Jan. 28- Feb. 1)   Basic Derivatives
Week 4 (Feb. 4- 8)   Review Exam 1 & Exam 1
Week 5 (Feb. 11- 15)   Product and Quotient Rules
Week 6 (Feb. 18- 22)   Chain Rule
Week 7 (Feb. 25- Mar. 1)   Chain Rule Cont. & Applications of Derivatives
Week 8 (Mar. 4- 8)   Review Exam 2 & Exam 2
Week 9 (Mar. 11-15)   Graphing Functions
Mar. 18- 22 Spring Break
Week 10 (Mar. 25- 29)   Graphing Functions Cont.
Week 11 (Apr. 1- 5)   Anti-derivatives & Integrals
Week 12 (Apr. 8- 12)   Integrals Cont. & Review Exam 3
Week 13 (Apr. 15-19)   Exam #3 & Applications of Integrals
Week 14 (Apr. 22-26)   Applications of Integrals Cont.
Week 15 (Apr. 29- May 3)   Review for Final Exam
Week 16 (May 6-10)   Final Exam, Tuesday, May 8th, 10:30am- 12:30PM

Note: Spring Break for the Commerce campus is March 18-22, but Spring Break for other campuses (like Corsicana) is March 11-15. We will work out something for class and due dates during this time.

By remaining enrolled in this course, you are agreeing to abide by these policies:

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