Math 2312.94E: Calculus I

COURSE SYLLABUS: Spring 2020 (January 13th – May 8th)

INSTRUCTOR INFORMATION

Instructor: **Adam Bowden**
Office Location: Binnion B-317
Office Hours: **2pm – 4:30pm Tuesday & Thursday (On Campus - TAMUC)**
                     12:05 – 1:05 Monday, Wednesday & Friday (Royse City HS)
Office Phone: **903-886-5953**
Office Fax: **903-886-5945**
University Email Address: adam.bowden@tamuc.edu
Preferred Form of Communication**: Email**
Communication Response Time: **Within 24 hours on weekdays**

COURSE INFORMATION

Required Materials: *Calculus, 8th Edition, by James Stewart (ISBN: 978-1285740621).* **Required is an access code for MathXL for School. Your instructor will provide additional instructions on how to purchase MathXL for School.** Access to MathXL includes access to an eBook version. A reference textbook may be purchased, but is **not** a requirement.

Course Description

Limits and continuity; the Fundamental Theorem of Calculus; definition of the derivative of a function and techniques of differentiation; applications of the derivative to maximizing or minimizing a function; the chain rule, mean value theorem, and rate of change problems; curve sketching; definite and indefinite integration of algebraic, trigonometric, and transcendental functions, with an application to calculation of areas.

Student Learning Outcomes

Upon successful completion of this course, students will:
1. Develop solutions for tangent and area problems using the concepts of limits, derivatives, and integrals.
2. Draw graphs of algebraic and transcendental functions considering limits, continuity, and differentiability at a point.
3. Determine whether a function is continuous and/or differentiable at a point using limits.
4. Use differentiation rules to differentiate algebraic and transcendental functions.
5. Identify appropriate calculus concepts and techniques to provide mathematical models of real-world situations and determine solutions to applied problems.
6. Evaluate definite integrals using the Fundamental Theorem of Calculus.
7. Articulate the relationship between derivatives and integrals using the Fundamental Theorem of Calculus.

Core Objectives

- **Critical Thinking.** Students will be able to analyze, evaluate, or solve problems when given a set of circumstances, data, texts, or art. This common core learning objective will be assessed on the final exam using key questions that will fulfill these objectives.
- **Communication.** In written, oral, and/or visual communication, A&M-Commerce students will communicate in a manner appropriate to audience and occasion, with an evident message and organizational structure. This common core learning objective will be assessed using class activities or projects which involve class discussion.
- **Empirical and Quantitative Skills.** Students will be able to interpret, test and demonstrate principles revealed in empirical data and/or observable facts. This common core learning objective will be assessed using in class discussion and projects, homework, and final exams.

The syllabus/schedule are subject to change.

COURSE REQUIREMENTS

Minimal Technical Skills Needed

Students will need to check their campus email regularly to stay informed of class announcements. Use of a graphing calculator (equivalent to a TI-84 or below) is not required, but is recommended.

Instructional Methods

Instruction will include lecture, demonstration and models, and some group work, based on time available.

Student Responsibilities or Tips for Success in the Course

Attendance and Participation

Attendance will be taken promptly at the start of each class. Thus, students will be expected to be seated and ready when class begins. Furthermore, students must be actively participating to receive credit for attendance that day. If you are part of an athletic, scholastic, or other group and must miss class, you may be excused only if the absence is listed as an excused absence by the university. Please contact me ASAP about any such absences.

Study Time per Week

A general rule of thumb for how much time to spend each week for a class is two to three times the credit hours for the class. Hence, for a four-credit hour class, a good suggestion is to spend 8 to 12 hours each week working on assignments or studying the material.

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

Assessments

HOMEWORK: Homework is accessed through a MathXL subscription. Thus, logging in each week to complete assignments is essential. Completing homework and turning it in on time is a must for success. **No late homework is accepted except at your instructor's discretion.**

QUIZZES: Quizzes will be occasionally given on previously learned material. In general, NO makeup quizzes will be given unless by excused absence.

EXAMS: There will be **four** scheduled exams before the final comprehensive exam. An in-class review and set of review questions will be provided before each exam.

Tentative Exam Dates: Exam 1 – Mon. Jan. 27   Exam 2 – Tues. Feb. 18   Exam 3 – Mon. Mar. 23   Exam 4 – Fri. Apr. 24

Partial credit is given *only* if the work neatly and clearly demonstrates progress toward the correct answer. During testing, **NO CELL PHONES OR OTHER ELECTRONIC DEVICES ARE ALLOWED TO BE USED AND MUST BE TURNED OFF AND PUT AWAY**. The only device a student may have is an approved graphing or scientific calculator.

> **No make-up exams may be given without prior notice of a university excused absence.**

However, at the end of the semester, I will drop the lowest exam grade with the final exam grade, provided the final exam grade is higher.

FINAL EXAM: The final exam is comprehensive and will be given on the last day of class. The final is tentatively scheduled for Monday, May 4th from 3:30 – 5:30pm.

GRADES: Tests (average of four): 60%   Homework/Quizzes/Attendance: 15%   Final: 25%

The syllabus/schedule are subject to change.

Each student's average for the course will be posted in your MyLeo Online 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.

TECHNOLOGY REQUIREMENTS

CALCULATORS

A scientific calculator is required for this class. Furthermore, a TI 83/84 is highly recommended. **However, any sufficiently advanced calculator, such as the TI – Nspire, TI-89, Casio Prizm or Casio Touch, is not allowed to be used during an exam.** The calculator you get should have at least the basic trigonometric functions sine, cosine, and tangent.

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.
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 are expected to check their campus email regularly. Any questions or concerns may be addressed to the instructor's campus email. A response will be provided within 24 hours on weekdays. Emails over the weekend may take longer for responses.

It is vital that students be engaged and participating in class. Everyone is welcome to ask questions during class to further understanding of the concepts. Furthermore, I welcome any questions you may have after class.

COURSE AND UNIVERSITY PROCEDURES/POLICIES

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

Appropriate classroom behavior is required from those who attend this class. All cell phones and electronic devices must be put away and silent during class. Furthermore, your classmates must be treated with respect, and any talking that disrupts the class is not allowed. If disruptions occur, a student will be asked to leave class and will earn a zero on any applicable grades for that class period. Serial disrupters will be asked to withdraw from the class.

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

In order to ensure fairness and high academic standards, any actions which violate the principles of academic integrity through dishonesty or cheating are given serious consideration.
In order understand what constitutes a violation of academic integrity and the consequences of such behavior, the university's policies may be reviewed at:
http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/13students/undergraduates/13.99.99.R0.03UndergraduateAcademicDishonesty.pdf. In particular, awareness of the following definitions is essential in order to know what represents academic dishonesty (pages 6 – 7):

- **"Cheating:** Intentionally using or attempting to use unauthorized materials, information, notes, study aids or other devices or materials in any academic exercise. Unauthorized materials may include anything or anyone that gives a student assistance, and has not been specifically approved in advance by the instructor."
- **"Complicity:** Intentionally or knowingly helping, or a attempting to help, another to commit an act of academic dishonesty."
- **"Plagiarism:** The appropriation of another person's ideas, processes, results, or words without giving appropriate credit."

Any form of academic dishonesty which is observed will be noted. The student will be informed of why their behavior falls under this category and cannot be allowed. The event will then be reported under the guidance of university procedure. The university's policies regarding these matters are outlined at the link above. Depending on the severity of the circumstances, disciplinary action may be taken.

Please be aware that while your instructor does not suspect every student of attempting to engage in dishonest behavior or cheating, certain measures may be taken during the semester to encourage integrity, honesty, and learning. Some of these measures may include asking for calculators to be cleared and for all electronic devices (except for those approved) to be put away.

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.

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

Week 1 (Jan. 13 - 17)
Syllabus, 1.4, 1.5 & 1.6

Week 2 (Jan. 20 - 24)
1.7, 1.8, 2.1 & Review

Week 3 (Jan. 27 - 31)
Exam 1, 2.2 & 2.3

Week 4 (Feb. 3 - 7)
2.3, 2.4 & 2.5

Week 5 (Feb. 10 - 14)
2.5, 2.6, 2.7 & 2.8

Week 6 (Feb. 17 - 21)
Review, Exam 2, 2.9 & 3.1

Week 7 (Feb. 24 - 28)
3.2, 3.3 & 3.4

Week 8 (Mar. 2 - 6)
3.4 & 3.5

Spring Break (Mar. 9 - 13)

Week 9 (Mar. 16 - 20)
3.7, 3.8 & Review

Week 10 (Mar. 23 - 27)
Exam 3 & 3.9

Week 11 (Mar. 30 - Apr. 3)
4.1 & 4.2

Week 12 (Apr. 6 - 10)
4.3 & 4.4

Week 13 (Apr. 13 - 17)
4.5, 6.1 & 6.2

Week 14 (Apr. 20 - 24)
6.2, 6.3, Review & Exam 4

Week 15 (April 27 – May 1)
Review for Final Exam

Week 16 (May 4 - 8)
Final Exam – Tentatively at 3:30 – 5:30 on Monday, Math 4th
Given during a two hour period.

By Remaining Enrolled In This Course, All Students Agree To Abide By The Policies Of This Class, As Stated In The Syllabus.

The syllabus/schedule are subject to change.