MATH 192 – Calculus I Course Syllabus

Instructor: Dr. Thomas R. Boucher, PhD

Binnion 310
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Phone: x5947
Office Hours: MTWRF 10:00-12:00 or by appointment

Note: This syllabus details the rules and procedures by which this course is to be conducted. You are responsible for reading this syllabus and knowing the contents – enrollment in this course constitutes an acknowledgement of this responsibility and implied consent to these rules and procedures.

Description: This course examines integral calculus of functions of one variable, and some integral calculus of functions of two variables, as follows. Topics include techniques of integration; applications of the integral; improper integrals; limits involving indeterminate forms; sequences and series; and use of computer technology.

Prerequisite: MATH 2413 or equivalent.

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

- Use the concepts of definite integrals to solve problems involving area, volume, work, and other physical applications.
- Use substitution, integration by parts, trigonometric substitution, partial fractions, and tables of antiderivatives to evaluate definite and indefinite integrals.
- Define an improper integral.
- Apply the concepts of limits, convergence, and divergence to evaluate some classes of improper integrals.
- Determine convergence or divergence of sequences and series.
- Use Taylor and MacLaurin series to represent functions.
- Use Taylor or MacLaurin series to integrate functions not integrable by conventional methods.


Technology: The Math department has set up a calculator loan program (TI-83/84) to support students. Students can borrow a calculator for a semester for a fee ($10-$15 for TI-83/84). Go to the Math department office in BIN 305 to get a calculator.

eCollege: I will get an eCollege coursesite up and running as soon as I am able. All handouts, grades, etc. will be posted on the site.

Grading: on a standard 100% scale:
- HW: 10%
- EXAMS: 15% each
- FINAL: 30%
Disputed grades will only be changed if graded assignments are produced which indicate the recorded grade is erroneous.

**Exams:** There are 4 exams and a cumulative final. There will be no makeup exams. With proper documentation of a valid excuse for missing an exam, the % of your grade due to that exam will be rolled over into the cumulative final; absent such documentation a missed exam counts as a zero. If you know beforehand that you will be missing an exam, speak to me and we can arrange for you to take the exam BEFOREHAND.

**Exam schedule:**
- **Exam #1** --- Monday, September 21st
- **Exam #2** --- Monday, October 19th
- **Exam #3** --- Monday, November 9th
- **Exam #4** --- Monday, December 7th
- **Final** --- Tuesday, December 15th, 8:00am – 10:00am

**Homework:** will be assigned in class and is due as indicated. No late homework will be accepted. You are free (encouraged, in fact) to work with others; however, each student must submit his/her own set of solutions. Occasionally, in-class projects/quizzes will be assigned and will count as a HW grade. I will drop the two lowest grades before computing your average.

**Attendance/Class Participation/Academic Integrity:** Students are expected to attend all lectures in a timely fashion and to participate in classroom and group discussions and activities; therefore no record of attendance is necessary.

**Note:** I reserve the right to give unannounced quizzes at any time. These will count as a HW grade.

**Tutoring:** Services up to the level of Calculus I provided by the Math Skill Center (Binnion Hall Room 328) with the following hours: M and W, 8am–8pm; T and R, 8am–6pm; and F 8am–3pm.

**Supplemental Instruction:** ???, your TA, will be available ??? at ??? in ???. I strongly recommend you take advantage of this resource. During a study session, the TA will
- Explain and do exercises that students had trouble with
- Do some more important examples
- Review before a test
- Review use of technology, graphing calculators and Mathematica, depending on the class requirement.
- Facilitate discussions on solutions, concepts and applications

**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 132, Phone (903) 886-5150 or (903) 886-5835, Fax (903) 468-8148, email: StudentDisabilityServices@tamuc.edu
Basic Tenets of Common Decency: “All students enrolled at the University shall follow the tenets of common decency and acceptable behavior conducive to a positive learning environment.” (Student’s Guide Handbook, Policies and Procedures, Conduct.) This means that rude and/or disruptive behavior will not be tolerated.

Common Core Objectives:

**Critical Thinking:** Students will be able to analyze, evaluate, or solve problems when given a set of circumstances or data. This common core learning objective will be assessed on the exams.

**Communications:** In written, oral, and/or visual communication, 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 on the exams.

**Empirical and Quantitative Skills:** Students will be able to understand and utilize mathematical functions and empirical principles and processes. This common core learning objective will be assessed on the exams.
Tentative Class Schedule:

Note: Chapters and sections refer to the 7th edition of Stewart. Topics in () are time-permitting.

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Final Exam: Tuesday, December 15th 8:00am – 10:00am