

MATH 1351: (Honors) Calculus I
Section H01, MWF 9:00–9:50, MATH 012

Course Information:

Instructor: Chris Monico
 Email: c.monico@ttu.edu
 Office: MA-252
 Office Hours: MW 11:00-12:00 and 1:00-2:30.
 Required Text: *Calculus*, Strauss, Bradley and Smith, 5th Ed.

Course outline & Important dates:

WARNING: This course moves very fast. If you fall behind, even by one section, you may not be able to easily catch up as each section generally depends very heavily on the ones before. I expect that students will read each section of the textbook in advance of the lecture. The following is my best approximation of what we will cover and when it will be covered. We will cover all material from Chapters 1-5 (approximately 350 pages of material, so I cannot re-iterate strongly enough that you will have to read textbook; don't expect to be able to learn everything from the lectures alone.)

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|-----------|------------|--|----------------------------|
| Material | # lectures | Exam 1 | Monday 9/19 |
| Chapter 1 | 4 days | Exam 2 | Monday, 10/24 |
| Chapter 2 | 4 days | Last day for student-initiated drop on MyTech with penalty | Monday, 10/31/11. |
| Chapter 3 | 8 days | Exam 3 | Monday, 11/21 |
| Chapter 4 | 8 days | Last day of classes | Wednesday, 12/7/11. |
| Chapter 5 | 9 days | Final Exam | Tuesday, 12/13 10:30–1:00. |

Calculator policy: Calculators may not be used on exams nor on homework. The mastery of arithmetic is a prerequisite for this course.

Attendance: Class attendance is *mandatory*. It is assumed that you will attend, so I will not waste your time by taking attendance. However, keep in mind that it will be decidedly difficult for you to pass this course if you do not attend. If you miss a class, it is your responsibility to find out what you missed (assignments, notes,...); either ask a fellow student or come by my office to find out - do *not* ask via email. If you are absent for an exam, you will be permitted to make it up *if and only if* you are absent for one of the following reasons:

- You are out of town performing duties on behalf of the university (i.e., athletics). Advance notification is required.
- Religious holiday (see TTU OP 34.19 below).
- **Severe** illness or hospitalization. Illness must be documented by a physician and approved by me in advance.
- Death in the family.
- Other extenuating circumstances, at the instructor's discretion (I am *not* very generous with this - it is only meant to allow for unforeseeable situations that are more serious than the things listed above. It does not cover, e.g. "My parents already bought a plane ticket for that date" or "My friend is getting married that weekend").

Note: Under such circumstances you will be given a substantially different 'make-up exam', not simply the same exam with numbers or functions changed. This is to be as fair as possible to the entire class and ensure that no student has an unfair advantage.

Expected Learning Outcomes Students will

- apply arithmetic, algebra, geometric, statistical and logical reasoning to solve problems,
- represent and evaluate basic mathematical and/or logical information numerically, graphically, and symbolically,
- interpret mathematical and/or logical models such as formulas, graphs, tables and schematics, and draw inference from them.

Students will become proficient in techniques of differentiation, understand the concept of rate of change and how to use it to solve real world problems, the concept of definite and indefinite integral and their relations to area and rate of change. In particular, the students will

- be able to explain the concept of continuous functions,
- compute instantaneous rate of change,
- compute derivatives of polynomial and transcendental functions,
- differentiation to solve related rate and optimization problems,
- compute definite and indefinite integrals.

Assessment of learning outcomes The expected learning outcomes for the course will be assessed through scheduled exams, homework assignments, and a research paper. Homework will be assigned regularly (nearly every class meeting). Most assignments will consist of two components - an online component (through the WebWork system) and a written component. Your final grade in this course will be determined by the weighted components and grading scale below.

| Grade components | | Grade Scale | |
|-------------------|-----|-------------|---|
| Online homework: | 15% | 90–100% | A |
| Written homework: | 10% | 80–89% | B |
| Exam 1: | 15% | 65–79% | C |
| Exam 2: | 15% | 55–64% | D |
| Exam 3: | 15% | 0–54% | F |
| Research paper: | 10% | | |
| Final Exam: | 20% | | |

ADA Accommodation: Any student who, because of a disability, may require special arrangements in order to meet the course requirements should contact the instructor as soon as possible to make any necessary arrangements. Students should present appropriate verification from Student Disability Services during the instructors office hours. Please note instructors are not allowed to provide classroom accommodations to a student until appropriate verification from Student Disability Services has been provided. For additional information, you may contact the Student Disability Services office in 335 West Hall or 806-742-2405.

Religious Holy Day Observance (OP 34.19)

1. “Religious holy day” means a holy day observed by a religion whose places of worship are exempt from property taxation under Texas Tax Code §11.20.
2. A student who intends to observe a religious holy day should make that intention known in writing to the instructor prior to the absence. A student who is absent from classes for the observance of a religious holy day shall be allowed to take an examination or complete an assignment scheduled for that day within a reasonable time after the absence.
3. A student who is excused under Section 2 may not be penalized for the absence; however, the instructor may respond appropriately if the student fails to complete the assignment satisfactorily.

Academic Integrity I take academic integrity extremely seriously. In particular, I have a zero-tolerance policy for both cheating and plagiarism. I define *plagiarism* as claiming the work or ideas of someone else as your own. Copying homework, phrases, sentences, or mathematics from any other source (including another student or a solutions manual) without citation is therefore plagiarism. Yes - it is very possible to plagiarize mathematics and it is just as offensive as every other instance of plagiarism. I would hope that you do not want someone else to claim credit for your hard work and I therefore expect that you will not claim credit for someone else’s work under any circumstances. If you use (read, look at, listen to, copy,...) a source other than the textbook then cite it, being as specific as possible (e.g., if you used a web site then give the URL - but if you forgot to write it down or cannot find it, the next best thing would be the name of the web site; if you cannot remember that, then at least acknowledge that it came from the web but you cannot remember where).

All instances of cheating on exams will be dealt with as strictly as allowed by TTU OP 34.12. Instances of plagiarism will be dealt with on a case-by-case basis and may range from a written warning to an automatic assignment of an F in the course, depending on the severity of the offense.