

Calculus I, Mathematics 2413, Section 002
Fall 2024

Instructor: Dr. Katie Anders

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Course Schedule: Class meets MWF from 9:05-10:20 A.M. in RBN 4027.

Course Website: You MUST activate your Canvas account. To do so, go to <https://www.uttyler.edu/canvas/>. This is also the address to login. If you are registered in the course, you already have access to the course. All important documents will be posted on Canvas.

Office hours: Tuesdays & Thursdays 9:00-10:30 A.M. in RBN 4046 and by appointment arranged by email

Required Text: OpenStax *Calculus Volume 1* is an open access textbook, freely available online at <https://openstax.org/details/books/calculus-volume-1>. At this link, you can read the book online, download a PDF, or buy a print copy. The digital ISBN-13 is 978-1-947172-13-5, and the paperback ISBN-13 is 978-1-50669-806-9.

Course Description: A study of functions, limits, continuity, differentiation, applications of the derivative, the definite and indefinite integral, and applications of integration.

Course Prerequisites: You must satisfy any one of the following prerequisites.

- Grade of C or better in a college trigonometry course (MATH 1316 or equivalent)
- Grade of C or better in a college precalculus course (MATH 2312 or equivalent)
- Score of 710 or higher on the SAT quantitative section
- Score of 27 or higher on the ACT math section
- Satisfactory score on the calculus placement test given by the UT Tyler Testing Center

Course Outline: We will cover the material corresponding to Chapters 1-5 in the textbook.

Student Learning Outcomes: Upon completion of this course, students should be able to do the following:

- Discuss the solution to the tangent and area problems involving limits, derivatives, and integrals. (Communication, Critical Thinking)
- Use graphs of algebraic and transcendental functions to determine limits, continuity, and differentiability at a point. (Critical Thinking)
- Determine whether a function is continuous and/or differentiable at a point using limits. (Analytic, Critical Thinking)
- Apply differentiation rules to differentiate algebraic and transcendental functions. (Analytic, Critical Thinking)

- Choose appropriate calculus concepts and techniques to provide mathematical models of real-world situations and determine solutions to applied problems. (Analytic, Critical Thinking)
- Compute definite integrals using the Fundamental Theorem of Calculus. (Critical Thinking)
- Recognize and discuss the relationship between derivatives and integrals using the Fundamental Theorem of Calculus. (Analytic, Critical Thinking, Communication)

Grading: Scores will be posted on Canvas. After the end of the semester, final course grades will be available on my.utttyler.edu. A final course grade of 90% is guaranteed to be at least an A, a final course grade of 80% is guaranteed to be at least a B, a final course grade of 70% is guaranteed to be at least a C, and a final course grade of 60% is guaranteed to be at least a D. All grades below D will be F.

Homework: 5%

Quizzes: 15%

Midterm exams: 15% each

Final exam: 20%

If you have any questions about the grading of a particular quiz or exam, you must contact me no more than one week after the day I return the graded quiz or exam in class, whether you are present during that class or not.

Attendance: It is your responsibility to attend class. Attendance is mandatory. This means, among other things, coming to class on time and prepared. Before class begins, you should silence and put away cell phones and any other electronic devices. Students are responsible for all announcements made during lecture.

Homework: Homework will be assigned each class period via the online platform WebWork. Your temporary WebWork password is **utttyler** in all lowercase letters. You should change the password immediately upon logging into WebWork for the first time. Your WebWork username has already been sent to you in an email to your patriots email account, provided you registered for the course before August 19. If you registered after that date, you must email Dr. Anders to let her know you need an account. This is your responsibility, and you must do it immediately. The link to our course's WebWork page was also provided to you in the same email and is posted in a Canvas announcement. More information on logging into and using WebWork is available on Canvas in a separate document.

In general, a new homework assignment will become available on WebWork after each class. It will usually be due by 5:00 A.M. the following Friday. The WebWork system provides you with instant feedback on your answers, as well as unlimited attempts to complete most problems. You should use this to your advantage. You are required to successfully complete all assigned problems on WebWork. Late homework will NOT

be accepted. When computing your final homework grade, I will use your total score on all the WebWork problems. For example, if there are a total of 150 problems throughout the semester, and you successfully complete 120 of them, your homework grade will be 80%.

Quizzes: There will be weekly quizzes given each Friday unless it is an exam week. The two lowest quiz scores will be dropped at the end of the semester. Quizzes will usually be given at the beginning of the class period. If you are tardy on the day of a quiz, you do not get extra time on the quiz.

Exams: There will be 4 midterm exams. A list of the test dates is given below. This list is preliminary and subject to change; at least one week advance notice of any change in test dates will be given.

Exam 1: Friday, September 20

Exam 2: Friday, October 11

Exam 3: Friday, November 1

Exam 4: Wednesday, November 20

Final Exam: The final exam will be on Wednesday, December 11 in the usual classroom, RBN 4027, from 10:15 A.M - 12:15 P.M.

Cell Phones: Cell phones are not permitted in class. You must silence them and put them away before class begins. During quizzes and exams, your cell phone may NOT be in your chair or lap.

Calculators: The use of calculators and other electronic devices, including cell phones, during exams is strictly prohibited, so study accordingly.

Make-ups: Make-ups for **documented** absences that are **required** as part of a UT Tyler obligation (e.g. athletes participating in an event, students participating in a debate contest, etc.) or for religious observation will be granted. For all make-ups of this type, prior notification of at least one week and documentation are required. Other make-ups are granted only in extreme cases and at the sole discretion of the instructor. Prior notification is still required. **Under no circumstances will make-ups be granted without prior notification.** Leaving early for a break is NOT grounds for a make-up, so please make your travel plans accordingly. In almost all cases, missed quizzes will be assigned a 0. Keep in mind that the 2 lowest quizzes will be dropped at the end of the semester.

Academic Integrity: Your work must be your own. Violations will be processed according to the established guidelines of the department, college, and university. Violations of academic integrity include, but are not limited to, cheating, fabrication, or plagiarizing. A range of academic sanctions may be taken against a student who engages in academic dishonesty. Below are ideas related to academic integrity.

Resources you are encouraged to utilize in this course include the textbook and unassigned problems, notes from class, assigned homework problems, your fellow Math 2413 students, the Math Learning Center, and your instructor. Email is the best way to contact me. I reply to email from 9:00 A.M.-4:00 P.M. Monday-Friday.

A note about a resource NOT allowed in this course: while the internet may be a valuable resource, using it to unethically acquire answers for your work will be considered a violation of academic integrity and processed accordingly. Similarly, copying answers from other students' assignments, past or present, violates the idea that your work must be your own.

The use of Artificial Intelligence is not permitted in this course at all. All work submitted by a student in this course should be their own. The assignments and assessments are designed to support your learning. Doing your own work, without assistance from artificial intelligence, is an essential part of mastering course learning objectives. In this course, you are expressly forbidden from using ChatGPT or any other artificial intelligence (AI) tools for any stages of the work process, including brainstorming. Deviations from these guidelines will be considered a violation of UT Tyler's Honor Code and academic integrity policies.

University Policies: Monday, September 9 is this semester's Census Date, the deadline for all registrations, schedule changes, and section changes. Monday, November 4 is the last day to withdraw from one or more courses. For university policies concerning Students' Rights and Responsibilities, Grade Replacement/Forgiveness, State-Mandated Course Drop Policy, Disability Services, Student Absence due to Religious Observance, Student Absence for University-Sponsored Events and Activities, Social Security and FERPA Statement, and more, see the University Policies and Information file on this course's Canvas page.

Contingency Plans: If the entire university moves all classes to Zoom at any point this semester, there will be some changes to the syllabus. These are NOT options that an individual student may choose.

If face-to-face classes are suspended for a short time, quizzes and tests will be moved so that they can be taken when face-to-face class resumes. In this case, there will be a Canvas announcement giving the new dates for quizzes and tests.

If face-to-face classes are suspended for a long period of time in the middle of the semester, some quizzes and tests may be eliminated, combined, and/or rescheduled, and the weights used to compute course averages may be adjusted.

If the entire university is not returning to face-to-face classes after some point late in the semester, the following weights will be used to compute your course average. In this case, the final assessment will NOT be cumulative.

Homework: 5%

Quizzes: 15%

Midterm exams: 17.5% each

Final exam: 10%

If all university classes must migrate online at some point, then online proctoring may be utilized. For online proctoring, students will need high speed internet, access to Zoom, a webcam, and a microphone. Please note that students can use university computer labs or the university library as a place to take an assessment being proctored online.