

Calculus II, Mathematics 2414, Sections 001

Fall 2024

Instructor: Jie Zeng
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Course Schedule: MWF from 9:05 A.M.-10:20 A.M. in RBN 4025

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

Student Support Hours: T 12:30 P.M.-2:00 P.M., W 12:00-1:30 P.M. in RBN 4039 and by appointment arranged by email

Required Materials:

- (1) Textbook: Essential Calculus: Early Transcendentals, 2nd edition, by James Stewart, ISBN #978-1-133-11228-0 (I will NEVER check your textbook officially)
- (2) Functioning computer, smartphone, or tablet which allows you to connect to the course technologies (such as Canvas and Webwork) and allows you to take photos (for the purpose of digitizing written work for upload to Canvas or Gradescope). I may assign coursework that must be completed or submitted online.
- (3) Reliable daily internet access on your computer and other devices in order to view content posted in the Canvas course and to submit your work on certain assignments.
- (4) Functioning web camera with audio capabilities (if our class moves online).

Course Description: A study of differentiation and integration of transcendental functions, polar coordinates, techniques of integration, sequences, series, and improper integrals.

Course Prerequisites: A grade of C or better in Calculus I (Math 2413 or equivalent).

Course Outline: We will cover the material corresponding to Chapters 6-9 in the textbook. For more details, see the schedule of topics posted on Canvas.

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

- Apply the ideas of definite integrals to solve problems of areas under curves and between curves, volumes of cylindrically symmetric objects, work done by a constant or variable force, and other assorted applications (Analytic, Critical Thinking)

- Describe the meaning of an improper integral and apply the concepts of limit, convergence, and divergence to evaluate some classes of improper integrals (Analytic, Critical Thinking)
- Define sequences and series and determine convergence or divergence of them (Critical Thinking, Communication)
- Find the Taylor and Maclaurin series to represent elementary functions and apply Taylor or Maclaurin polynomials to the integration of functions not integrable by conventional methods (Analytic, Critical Thinking)
- Apply the ideas of polar coordinates to find areas, lengths of curves, and representations of conic sections (Analytic, Critical Thinking)
- Persuasively communicate mathematical ideas using clear and concise mathematical language, including terminology, notation, and grammar (Communication)

Grading: Scores will be posted on Canvas. After the end of the semester, final course grades will be available on my.uttyler.edu. Your final course percentage grade (calculated as indicated above) will determine which letter grade you will be assigned, according to the following scheme:

A = 90 - 100%

B = 80 - 89%

C = 70 - 79%

D = 60 - 69%

F = 0 - 59%

Homework: 15%

Quizzes: 15%

3 Midterm exams: 15% each

Final exam: 25%

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. If you have any questions about the grading of a particular homework assignment, you must contact me no more than one week after the day the homework is due.

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 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. More information will be given in the first week.

In general, a new homework assignment will become available on WebWork after each class, and you will have one week to finish it. 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.

Quizzes: There will be weekly quizzes given each Friday unless it is an exam week. Quizzes will usually be given at the end 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 3 midterm exams+1 make-up exam. The lowest of the 4 exams will be dropped. 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, Sep 20

Exam 2: Friday, Oct 18

Exam 3: Friday, Nov 15

make-up: Monday, Dec 2

Final Exam: 8:00 A.M.–10:00 A.M. Monday, Dec 9 in RBN 4025

”Drop” Policy: As a general rule, students are expected to attend all class, to keep up with all coursework, and to submit work on time and in accordance with the assignment instructions. However, I understand the need for more flexibility when it comes to students who may be unable to attend class or submit work due to extenuating circumstances (including illness). For this reason, at the end of the semester, I will set the grade book to drop 15% of your lowest scores in the homework category and 30% of your lowest scores in the quizzes category. Because of the generous nature of the ”drop 15% and 30%” policy, I will not be offering make-up opportunities for non-exam assignments.

I hope that this policy will ensure that students who are ill or required to isolate feel encouraged to remain at home. Please do not come to class if you are sick. That sort of behavior is selfish and puts lives at risk.

Electronic Devices: Even though you are encouraged to bring your electronic devices to the classroom, you must silence them before class begins. During quizzes and exams, your devices 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.

AI Statement: You are allowed to use AI. UT Tyler is committed to exploring and using artificial intelligence (AI) tools as appropriate for the discipline and task

undertaken. We encourage discussing AI tools' ethical, societal, philosophical, and disciplinary implications. All uses of AI should be acknowledged as this aligns with our commitment to honor and integrity, as noted in UT Tyler's Honor Code. Faculty and students must not use protected information, data, or copyrighted materials when using any AI tool. Additionally, users should be aware that AI tools rely on predictive models to generate content that may appear correct but is sometimes shown to be incomplete, inaccurate, taken without attribution from other sources, and/or biased. Consequently, an AI tool should not be considered a substitute for traditional approaches to research. You are ultimately responsible for the quality and content of the information you submit. Misusing AI tools that violate the guidelines specified for this course is considered a breach of academic integrity. The student will be subject to disciplinary actions as outlined in UT Tyler's Academic Integrity Policy.

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.

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 2414 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.

Harassment, Bias, Discrimination:

NO TOLERANCE!

Check <https://www.uttyler.edu/titleix/report-an-incident.php> for more information.

University Policies: Monday, Sep 9 is this semester's Census Date, the deadline for all registrations, schedule changes, and section changes. Monday, Nov 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, 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.

Homework: 15%

Quizzes: 15%

Midterm exams: 20% 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.