Towson University

Department of Mathematics

Math 275 Section 001: Calculus III

Spring, 2025

Tu/Th: 11 am-1:20 pm, YR 128

Jing Tian

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Appointment

Course Description: This is the third course in the Calculus series. The main topics of this course are Vectors and Geometry of Space, Vector Functions, Partial Derivatives, Multiple Integrals and Vector Calculus. The idea is to generalize the basic notions of Calculus (limits, derivatives, and integrals) to a multi-variable setting.

Course objectives: Students will master the techniques of calculus in two and three variables, such as finding and analyzing critical points, and evaluating multiple integrals. Along the way we will consider the interplay between geometry and algebra and develop intuition for the geometric aspects of problems in higher dimensions.

Prerequisites: MATH 274

Required Text: The Stewart's Calculus, Early Transcendentals (9th edition). WebAssign offers a free e-book.

Tentative Schedule (subject to changes):

	Beginning of the Week	Topics
Week 1	01/27/25	Sections 12.1-12.3
Week 2	02/03/25	Sections 12.4, 12.5
Week 3	02/10/25	Sections 13.1-13.3
Week 4	02/17/25	Sections 14.1, 14.2
Week 5	02/24/25	Sections 14.3, 14.4
Week 6	03/03/25	Sections 14.5, 14.6
Week 7	03/10/25	Exam 1
		Section 14.7

Week 8	03/17/25	Spring Break
Week 9	03/24/25	Sections 15.1, 15.2
Week 10	03/31/25	Sections 15.6-15.8
Week 11	04/07/25	Exam 2
		Sections 16.1
Week 12	04/14/25	Sections 16.2, 16.3
Week 13	04/21/25	Sections 16.4, 16.6
Week 14	04/28/25	Sections 16.7, 16.8
Week 15	05/05/25	Sections 16.9
Week 16	05/12/25	Review and Final Exam

Evaluation: There will be written homework/quizzes, Mathematica labs, two midterms, and a comprehensive final examination. The higher test score of the midterm will contribute **25**% toward the final grade, the lower one will count **15**%. Written homework/quizzes will count **20**%, labs will count **10**% in the final grade, and the comprehensive final will be **30**%.

Final Grade Cut-offs

(x is your overall score)

A: x ≥ 93%	C+: 77% ≤ x <80%
A-: 90% ≤ x < 93%	C: 70% ≤ x <77%
B+: 87% ≤ x < 90%	D+: 67% ≤ x <70%
B: 83% ≤ x < 87%	D: 60% ≤ x <67%
B-: 80% ≤ x < 83%	F: x<60%

Test Dates: Test 1: March 06, 11 am-1:20 pm

Test 2: April 10, 11 am-1:20 pm

Final: TBA

Note: Regular exam dates may change.

Written Homework: Weekly homework will be assigned on WebAssign. You are enrolled to WebAssign already. To access the homework: you can go to the Tools folder in the course on Blackboard. Please pay attention to the Due date of each assignment. **No late homework will be accepted for a grade.** The lowest TWO homework (including quizzes) scores will be dropped.

Quizzes: Some pop quizzes may be given in class. For the purpose of grades, each quiz counts as a written assignment.

Mathematica Labs: Labs using Mathematica will take place at some (but not all) weeks. As a part of TU's Mathematica license, students may obtain a copy of the software for personal use for free. Lab assignments will also be posted on the homework page. Labs will be due during the course period one week after it is assigned. **No late lab assignments will be accepted for a grade.**

Course Policies:

- 1. Class attendance is expected. If you miss a class, it is your responsibility to get the material and the homework assignment from your fellow students.
- 2. You are encouraged to discuss your homework and lab assignments with each other; however, solutions should be written down separately. You should not read anybody else's homework or lab or show your work to anybody else.
- 3. If you need extra help with the course, you have many resources, you have many resources, including the tutoring center: http://www.towson.edu/aac/tutoring/math.html. Also, please feel free to contact me, or make an appointment, if you have questions or concerns about the class. Strong suggestion: use my office hours if you need help with the material.
- 4. Course repeat policy: "Students may not repeat a course more than once without prior permission of the Academic Standards Committee."
- 5. You can send me emails to ask questions or make an appointment. I will **ONLY** reply to emails 9am-7pm weekdays, also please expect the reply email within 24 business hours, so plan early! **Please include the course name and section in the email subject.**

Make-up Exams Policies: Make-up exams will **ONLY** be given for excused absences. It is TU policy to excuse student absences for the following reasons: illness or injury when the student is unable to attend class; religious observance where the nature of the observance prevents the student from attending class; participation in University activities at the request of University authorities; and compelling verifiable circumstances beyond the control of the student. Absences that do not fall into any of these four categories are unexcused. Make-ups are allowed only for documented excused absences. In case of a scheduled excused absence, the student must provide documentation two weeks prior to the date of the absence; otherwise, documentation must be provided as soon as possible.

Academic Integrity Policy: This class is conducted in accordance with Towson University's Code of Conduct as described in the TU Catalog. This code prohibits "all forms of dishonesty including cheating (and) plagiarism." Plagiarism is copying the words of another or the use of ideas of another without proper citation. Cheating includes unauthorized collaboration during an assessment and using unauthorized materials, technology, or web sites during an assessment or for an assignment. If a violation of the academic integrity policy appears to occur, the course instructor will meet with the student to present the evidence and request an explanation. If the faculty member determines that a violation has occurred, the faculty member informs the student, in writing, of the academic penalty and of the student's right of appeal. This letter also goes to the Office of Student Conduct. The range of potential penalties includes deduction of points or rejection of assignment, failure of course, or a more severe disciplinary action by university authorities. The more severe the violation (in terms of extensiveness and intentionality), the more severe the penalty.

Accessibility and Disability Services: This course is in compliance with Towson University policies for students with disabilities. You must supply the instructor with a memo from ADS authorizing your accommodation before any accommodation can be made. Since accommodations are not retroactive, it is strongly recommended that you provide instructor with notification as early as possible in the term. To register with ADS, contact Accessibility and Disability Services at 410-704-2638 (Voice) or 410-704-4423 (TDD), or visit the ADS office in the Administration Building, Room 232 or their website: Students who suspect that they have a disability but do not have documentation are encouraged to contact ADS for advice on how to obtain appropriate evaluation.

Department of Mathematics Commitment to Diversity: Towson University values diversity and fosters a climate that is grounded in respect and inclusion. Everyone participating in this course is expected to treat all others in accordance with this vision and policy. Tu's diversity tenets include sex, sexual orientation, race and ethnicity, color, nationality, gender identity or expression, mental/physical ability, religious affiliation, age, and veteran status. If you feel these expectations have not been met, please contact the Math Department's Diversity representative, Dr. Goode at egoode@towson.edu.