

MAT397-M001: CALCULUS III

Summer Session 1 2017

Instructor: James J. Heffers	Office: 222 Smith Hall
Email: jjheffer@syr.edu	Hours: MW 2:30pm-3:30pm

Course meetings: Monday - Thursday: 12:00pm - 2:25pm in Carnegie 122.

Homework: Homework will be suggested at the end of each section. Homework is not part of your final grade, but the quizzes and exams will reflect the homework. Success in the class is heavily contingent upon keeping up with assignments.

Expectations: MAT 397 is the third course in a three-semester sequence in Calculus. This sequence is designed for Mathematics, Science and Engineering majors and for those students in other majors who intend to take advanced courses in mathematics. This course covers the concepts of vectors, vector valued functions, functions of several variables, partial derivatives, multiple integration, and vector calculus. Class time will not be allocated for re-teaching MAT295 or MAT296 material, and while I will offer help during my office hours, students with questions pertaining to 397 material will always be prioritized over those who need review of old material.

Text: Essential Calculus: Early Transcendentals, by James Stewart, 2nd edition, Cengage Publishing. We will cover chapters 10-12 and the first half of chapter 13. Not all subsections will be covered. Your instructor will let you know what topics are being omitted.

Prerequisites: Completion of MAT 296 (Calculus II) with a grade of C- or better.

Liberal Arts Core: Completing MAT 397 with a grade of C or better satisfies the Quantitative Skills requirement of the Liberal Arts Core in the College of Arts and Sciences. It also may simultaneously be used to partially satisfy the Natural Sciences and Mathematics divisional requirement.

Calculators: A calculator may be useful or needed at times for some homework problems. However, calculators will not be allowed on quizzes or exams. This includes calculators on cell phones.

Exams: There will be three exams given during the semester. The exams will be given during recitations on the following dates:

- Exam 1 Thursday June 1
- Exam 2 Thursday June 15
- Exam 3 Thursday June 29

Grade: Each Exam is 25% of the final grade and the remaining 25% is from the quizzes. The standard grading scale will be used when determining final grades.

Make-up Exams and Quizzes: **No make-up exams or quizzes will be given.** The math department policy for a missed exam is that, if you can justify the absence to the satisfaction of your instructor, then your grade on the relevant portion of the final exam will be substituted for the missing grade. Typically, you will not be allowed to make up more than one exam this way. If you cannot justify your absence from an exam, then you will receive a grade of zero for that exam. Any exceptions to these procedures must be approved by the course supervisor. If you know in advance that you will have to miss a quiz or exam

because of some major event, you should discuss this matter with your instructor well before the quiz/exam. One quiz score will be dropped. There are no provisions beyond this for make-up quizzes.

Course Supervisor: The course supervisor is Professor Dan Zacharia (zacharia@syr.edu). Any issues that cannot be resolved with the course instructor should be brought to his attention.

Students with disabilities: If you believe that you need accommodations for a disability, please contact the Office of Disability Services (ODS), <http://disabilityservices.syr.edu>, located in Room 309 of 804 University Avenue, or call (315) 443-4498 or TDD: (315) 443-1371 for an appointment to discuss your needs and the process for requesting accommodations. ODS is responsible for coordinating disability related accommodations and will issue students with documented Disabilities Accommodation Authorization Letters, as appropriate. Since accommodations may require early planning and generally are not provided retroactively, please contact ODS as soon as possible.

Religious observances policy: Syracuse University's Religious Observances Policy recognizes the diversity of faiths represented among the campus community and protects the rights of students, faculty, and staff to observe religious holy days according to their tradition. Under the policy, students are provided an opportunity to make up any examination, study, or work requirements that may be missed due to a religious observance provided they notify their instructors no later than the end of the second week of classes for regular session classes and by the submission deadline for flexibly formatted classes. Student deadlines are posted in MySlice under Student Services/Enrollment/My Religious Observances/Add a Notification.

Academic Integrity: Syracuse University's academic integrity policy reflects the high value that we, as a university community, place on honesty in academic work. The policy defines our expectations for academic honesty and holds students accountable for the integrity of all work they submit. Students should understand that it is their responsibility to learn about course-specific expectations, as well as about university-wide academic integrity expectations. The university policy governs appropriate citation and use of sources, the integrity of work submitted in exams and assignments, and the veracity of signatures on attendance sheets and other verification of participation in class activities. The policy also prohibits students from submitting the same written work in more than one class without receiving written authorization in advance from both instructors. The presumptive penalty for a first instance of academic dishonesty by an undergraduate student is course failure, accompanied by a transcript notation indicating that the failure resulted from a violation of academic integrity policy. The presumptive penalty for a first instance of academic dishonesty by a graduate student is suspension or expulsion. SU students are required to read an online summary of the University's academic integrity expectations and provide an electronic signature agreeing to abide by them twice a year during pre-term check-in on MySlice. For more information and the complete policy, see <http://academicintegrity.syr.edu>.

Suggested Homework

Section	Problems
10.1	1 - 4, 7, 9 - 13, 15, 18, 19, 21, 23, 27 - 30, 33, 35
10.2	2 - 4, 5 - 17 odd, 18, 24, 28
10.3	1, 2, 5 - 9, 11, 15, 16, 19, 21, 29, 31, 32, 36, 37, 39, 41*
10.4	1 - 7 odd, 9, 13*, 16, 17, 19, 20, 27 - 33 odd, 34, 37 39
10.5	1, 3, 5, 7 - 15, 18, 19, 21 - 32, 33 - 39 odd, 41, 44 - 46, 49
10.6	1 - 7 odd, 11, 13, 17, 19, 21, 24, 26, 29, 30
10.7(1)	1, 3 - 5, 7, 9, 15, 17, 23, 28 30
10.7(2)	33 - 43 odd, 46, 47, 49, 50, 59 - 67 odd
10.8	1, 3, 4, 13, 15, 39 42
10.9	3 - 11 odd, 22 25
11.1	1 - 19 odd, 22 - 24, 27, 31, 47 50
11.2	1 - 11 odd, 15, 21 25
11.3	1, 7 - 17 odd, 21, 27, 31, 33, 39, 41, 45, 47, 51, 53, 57
11.4	1, 3, 5, 11, 13, 17, 21, 23, 27
11.5	1 - 7 odd, 13 - 19 odd
11.6	1 - 17 odd, 25, 31 - 35 odd
11.7	1 - 13 odd, 35
11.8	1 - 11 odd, 19, 31, 37
12.1	1a, 3a, 9 - 25 odd, 31, 34
12.2	1 - 9 odd, 11 - 14, 15, 17, 21, 27, 29, 37 - 41 odd, 45, 48 (Set up all and integrate a few.)
12.3	1, 4 - 7, 9, 13 - 19 odd, 23, 25 (Set up all and integrate a few.)
12.4	1, 3, 5, 7, 13
12.5	9, 10, 14, 19, 26, 27, 33, 39 (Set up all and integrate a few.)
12.6	1 - 3, 5 - 7, 9, 13 - 25, 29, 30 (Set up all and integrate a few.)
12.7	1, 3, 5 - 7, 9 - 11, 13, 17, 21 - 27 odd, 37 (Set up all and integrate a few.)
12.8	1, 3, 11 - 19 odd, 23, 24
13.1	11 - 14, 15 - 18, 21, 24, 25
13.2	1 - 3, 5, 6, 9, 11, 13, 15, 17 - 19, 21
13.3	3 - 19 odd
13.4	1 - 13 odd, 18