

Math 237-002, Spring 17
11:30-12:25 MF;
11:10-12:30 TR
COHH 3121

Multivariable Calculus Nezam Iraniparast
Office COHH 4115
Phone 745-6218

4 credit hours

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Description and Purpose of the Course. This course extends the fundamental ideas of differential and integral calculus I, II to vector functions of several variables. The topics include; directional derivative, implicit functions, vector fields (e.g. gradient, curl), scalar fields (e.g. divergence), line integrals, multiple integrals (e.g. surface and volume integrals), the important relations between line, surface and volume integrals embodied in the theorems of Green and Stokes. Upon the completion of this course, students should be able to apply the techniques of multivariable to the concepts such as fluid mechanics and electromagnetism in physics and engineering and as a foundation to higher mathematics in analysis. It is required of all math majors.

Text: The online WebAssign version of Multivariable Calculus by Larson/Edwards, 10th edition. For more assistance please visit

<https://webassign.com/support/student-support/>

The textbook is optional.

Enroll online: Your class key is wku 1957 9954

Prerequisites: Math 137 with a grade of C or better.

Syllabus: We will cover chapters 11-15 of the text.

Equipment: You can use a calculator (preferably TI89) for the algebra, graphing and numerical calculations.

Attendance: You are expected to be regular and punctual. Missing a class must be reserved for only a well- documented emergency and with the information of your professor. Students are responsible for all material covered in class, including any announcements made.

Online Homework: Online homework on 'WebAssign' will be assigned regularly. Please make sure not to fall behind. No extension will be awarded.

Handout Homework: Regularly during the semester I will provide you with a take home homework. You will need to solve and explain the problems on the homework and submit them by the specified time and date. No collaboration will be allowed. I will not answer questions on the content until after the submission deadline. No late or make up is possible.

Quizzes: Both announced and un-announced quizzes may be given. Its score will be added to pool of take home assignment scores. No make up here either.

Tests: There will be four tests online on WebAssign. All tests will be given in the Testing Center (COHH 2126; www.wku.edu/mathtesting). You will have one school week to

complete each test. You will have two hours, with no breaks, per each test and two trials per each question. You are advised to work the test questions on paper and enter the answers into the computer. I will review the written work and award partial credits when deemed appropriate and will make any necessary grade adjustments. There will be no make up or extension of the due date.

Students will be responsible for making their own testing appointments. **You will be required to provide a valid WKU ID for admission to testing.** Calculators will be checked before testing and applications, programs and memory may be cleared. All cell phones will be held at the check-in desk.

Test 1 (11.1 – 11.6) Feb. 6 – Feb. 10, 5:00 pm

Test 2 (11.7 – 13.2) Feb. 27 – March 3, 5:00 pm

Test 3 (13.3 – 13.10) March 27 – March 31, 5:00 pm

Test 4 (14.1 – 15.1) April 17 – April 21, 5:00 pm

Final Exam: The comprehensive final (May 9, 10:30-12:30 am) will be in the classroom and on paper.

Grade Distribution

Online Tests		Online HW		Handout HW		Final Exam	Total
60%	+	10%	+	10%	+	20%	100%

Grading scale: 90% A; 80%B; 70%C; 60% D.

Office Hours: 8:30-9:30 am MTRF, and by appointment.

Student Disability Services: Students with disabilities who require accommodations (academic adjustments and/or auxiliary aids or services) for this course must contact the office of Accessibility Resource Center, DSU, 1074. Do not request accommodations directly from the professor or instructor without a letter from the Office for Student Disability Services.

