

**MATH 212.002 : Multivariable Calculus**  
Summer 2014

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**Instructor:** Miriam Kuzbary

**Class Hours:** MTWRF 10:30 - 12:00pm in SEW 462

**Email:** miriam.kuzbary AT rice DOT edu

**Office Hours:** MTWRF 1:00 - 2:00pm and by appointment in HBH 48 (in the basement).

**Course Description:** In this class we will generalize concepts from Calculus 1 and 2 to higher dimensions. We will use vectors to study properties of both real-valued functions and vector-valued functions. We will also study line integrals, multiple integrals, and surface integrals, as well as important theorems such as Green's theorem, Stokes' theorem, and Gauss' divergence theorem.

**Course Expectations:** This is a difficult class normally, but taken during the summer it will likely be even more of a challenge. Please expect to spend a minimum of two hours per hour of class working outside of the classroom. Though I will have office hours every week day, feel free to send me an email at any time with questions you have and I will respond promptly and arrange to meet with you if necessary.

**Course Materials:** The textbook for this class will be Vector Calculus, 5th ed. by Jerrold Marsden and Anthony Tromba. I will also use a few websites for visualizations of concepts I feel are not adequately depicted by 2-dimensional pictures in a textbook.

**Website:** On OWLSpace

**Homework:** There will be homework due every day at the beginning of class. Homework will be posted on owlspace at least two days before it is due. Working together is encouraged, however, each student must write up their homework on their own. Homework must be legible and the answers should be both well justified and clearly indicated.

**Exams:** This class will have two midterms (on 7/3 and 7/16) and one final exam (7/28) on the Monday after the last day of class. On midterm days there will be a short review and then an hour long exam. The final exam will be three hours, and start at 10am on July 28th. More details will be announced closer to each exam date. If you have a conflict with any of these dates, please discuss it with me well in advance and we will find a solution.

**Grading:** Homework will account for 20% of the final grade, the two midterms will account for 25% each, and the final exam will account for 30% of the final grade.

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**Tentative Course Schedule:**

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Week 1:	1.1-.4, 2.1-.6
Week 2:	3.1, 3.3, 3.4, and Midterm 1 (7/3)
Week 3:	5.1-.5, 6.1-.2, 4.1-.2
Week 4:	4.3-.4, Midterm 2 (7/16), 7.1-.4
Week 5:	7.5-.6, 8.1-.4
Week 6:	Final Exam (7/28)

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**Disability Support:** Any student with a documented disability seeking academic adjustments or accommodations is requested to speak with me during the first two weeks of class. All such discussions will remain as confidential as possible. Students with disabilities will need to also contact Disability Support Services in the Allen Center.