

**MATH 251 SECTION 03**  
**– MULTIVARIATE & VECTOR CALCULUS –**  
**FALL 2016**

**Meeting:** MW 3:15-4:30, F 1:50-3:05

**Classroom:** 005 Hermann Hall

**Instructor:** Dr. Benjamin (“Ben”) Reiniger

**Office:** 110 Rettaliata Engineering Building

**Email:** breiniger@iit.edu (please include “Math251” in your subject lines)

**Website:** [www.math.iit.edu/~breiniger/teaching/teachingF16](http://www.math.iit.edu/~breiniger/teaching/teachingF16)

**Office Hours:** TBD

I can often accommodate additional office hours by appointment.

**General Information:** This class extends the ideas in Calculus 1 to higher dimensions. We start by learning about higher-dimensional (analytic) geometry and higher-dimensional functions (which come in two flavors: multivariate and vector-valued). Then we consider derivatives and integrals involving these creatures, and their applications. A detailed list of topics can be found at <http://science.iit.edu/applied-mathematics/programs/course-descriptions>

**Text:** James Stewart, Multivariable Calculus Hybrid Edition OR Stewart’s Calculus Hybrid. WebAssign access is bundled with these Hybrid editions; if you have a non-hybrid version or a used textbook, you will need to purchase WebAssign access separately. You may also purchase just the WebAssign access and use the eBook they provide.

**Grading:** Your course grade will be obtained roughly as follows:

- Homework: 20%
- Quizzes: 10%
- Exam 1: 20%
- Exam 2: 20%
- Final Exam: 30%

The assignment of letter grades will be no more strict than the standard 10 point scale.

Late homeworks will not be accepted, and quizzes will not be excused. Your two lowest homework grades and your two lowest quiz grades will be dropped to accomodate for illness or other unexpected disruptions. If you need to miss an exam, advance notice is vastly superior; if official documentation is provided, a conflict exam will be provided.

Grading of written work is based on the following criteria:

- Content: correctness of the mathematical ideas.
- Style: the explanations of your work, where applicable.

Written assignments will be returned graded and commented. If you have any questions or concerns about the grade or comments, contact me within a week for clarification/regrade.

**Homework:** Homework will primarily be assigned in WebAssign. Occasional written assignments may also be given.

You are encouraged to work on homework in whatever groups you like. (I suggest meeting in groups of 3 or 4.) However, it is your responsibility to ensure that you understand the concepts and methods presented or reinforced by the homework. Quizzes and exams will not allow calculators, so I recommend not using one on the homeworks either except to check your work.

**Quizzes & Exams:** There will be many quizzes throughout the semester. We will have two exams during the semester as well as a final exam. Quizzes and exams will be taken without the aid of calculators and other electronic devices, notes, or classmates.

**Tutoring Service:** Academic Resource Office, [arc.iit.edu](http://arc.iit.edu)

**Attendance Policy:** You are expected to attend every class meeting. If you miss a meeting, you are responsible for catching up on the material.

For University excused absences, contact me to determine appropriate accommodations. Remember that you are responsible for all information that you miss; find a friend who has the notes.

**Disabilities:** Reasonable accommodations will be made for students with documented disabilities. In order to receive accommodations, students must obtain a letter of accommodation from the Center for Disability Resources. Please also make an appointment with me to discuss implementation of accommodations. If you will be taking an exam outside of normal class hours, I need at least 5 business days' notice to accommodate you.

**Academic Integrity:** Academic Integrity may be summed up by the phrase, "your work must be your own." Violations will be processed according to the established guidelines. Please note that it is a violation "to engage...in a course of action that would cause a reasonable student to conclude a violation...would be the likely result". A range of academic sanctions may be taken against a student who engages in academic dishonesty. Please see Article I of the Handbook for additional information and procedures.

**Decorum:** During our meetings you should be respectful of everyone's time. Please silence cell phones. I don't mind if you bring food, but do so in a way that is not distracting to others. Late arrivals and early departures are also disruptive.

**Feedback:** You will have several opportunities during the semester to provide feedback on this class. Please make use of these opportunities, and have thoughtful comments ready. You don't need to wait for these opportunities: if you have suggestions/questions/comments, please let me know.

*I look forward to working with all of you this semester. Good luck!*