MA252.04 Spring 2013: Calculus II Syllabus

9:00 MWF: 004 KH, 12:15-1:30 Th: 005 KH

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Class webpage: [http://evergreen.loyola.edu/loberbroeckling/www/ma252/index.html](http://evergreen.loyola.edu/loberbroeckling/www/ma252/index.html)

Other information found on Moodle.

<table>
<thead>
<tr>
<th>Office Hours</th>
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<td>Monday</td>
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Also by appointment (see my schedule).

I reserve the right to make changes to the syllabus at any time during the term by announcing them in class and on the webpage. You are responsible for knowing what was discussed/announced in class but also posted on Moodle/class website.

**Prerequisites:** At least a C- or better in MA251 (Calculus I) or its equivalent in AP credits.

**Course Description:** A continuation of MA251. Techniques and applications of integration; improper integrals; parametric equations and polar coordinates; sequences and series.

**Text:** Required: *Single Variable Calculus: Early Transcendentals, 7th Edition* by James Stewart. The student solutions manual is not required but you may find it useful. We will cover most of Chapters 6-11. The Volume 2, loose-leaf, custom text has chapters 5-11. The larger textbook has chapters 1-16 and is for students planning to take Calculus III.

**Calculators:** A graphing calculator is not required but may be useful. You need nothing fancier than a TI-83 or its equivalent. It is up to you to learn how to use one. During quizzes and exams calculators may not be shared. Certain types of graphing calculators such as the TI-89 will not be allowed for quizzes and exams.

**Grading:**

Based on:

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<tr>
<td>[WeBWorK] &amp; Quizzes</td>
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<tr>
<td>2 Exams</td>
<td>20%</td>
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<td>(higher exam is worth 25%)</td>
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<td>Final exam</td>
<td>30%</td>
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Basic Scale

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<tr>
<th>Grade</th>
<th>Percentage</th>
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<tr>
<td>A</td>
<td>90-100%</td>
<td>I give +/- grades, the cutoffs being at the 7's and 3's, respectively.</td>
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<tr>
<td>B</td>
<td>80-89%</td>
<td>Thus 80-82.9 = B-, 83-86.9 = B, and 87-89.9 = B+.</td>
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<td>C</td>
<td>70-79%</td>
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<td>D</td>
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<td>F</td>
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**Homework and WeBWorK:** This course will emphasize problem solving and some applications of mathematics. Homework problems will be assigned from each section that we cover and posted on the [homework webpage](http://evergreen.loyola.edu/loberbroeckling/www/ma252/index.html). Also, you will be asked to do homework on the computer through [WeBWorK](http://evergreen.loyola.edu/loberbroeckling/www/ma252/index.html). The WeBWorK counts towards your grade. Even though I will not be collecting the homework assigned from the book, it is important for you to be able to do all of the problems and understand the concepts behind them.
Quizzes: There will be short quizzes every Thursday at the beginning of class unless told otherwise. They will cover the material on the week’s homework problems (both textbook and WeBWorK problems) and examples done during class. *I will only answer brief questions before the quiz; questions should be taken care of in previous classes or office hours. There are no make-ups on quizzes. The lowest quiz score will be dropped.*

Exams: There will be 2 in-class exams during the term. They are tentatively scheduled on Thursday, February 14 and Thursday, March 21. Other information about the exams will be announced in class as each exam approaches.

Final Exam: Friday, May 3 at 9 AM.

Extra Credit: Do not count on extra credit in this course to boost your grade. I make it a policy to not give extra credit on an individual basis so do not ask for it, especially at the end of the semester.

Attendance Policy: I do not take attendance every day, but I do pay attention to who shows up. If you must miss class, I don’t need to hear why because it is your responsibility to find out what you missed. It is best to get notes from a classmate; my lecture notes will not be useful to you. If you cannot make it to an exam because of illness or family emergency, let me know in advance by phone or e-mail. Make-ups will be given only under these circumstances. Don’t abuse this. No changes can be made to the date and time of the final exam.

Classroom Etiquette: When you come to class, I expect you to not only be in attendance physically but also mentally. That means no cell phones, no leaving class during lecture, no extraneous chatter, etc. If you know you must leave class, sit by the door to minimize the disruption.

Honor Code: All students of the University are expected to understand the meaning of the [Loyola University Honor Code](#). Ignorance of the Code is not a valid reason for committing an act of academic dishonesty. The following constitute violations of the Code and are defined in the Community Standards Handbook: cheating, stealing, lying, forgery, plagiarism and the failure to report a violation.

I expect you to work with others on homework (by collaborating, not copying!). I will ask you to sign a pledge on exams but not on other turned-in work (like quizzes) although I will expect the same honesty on all of them. Any questions or concerns should be directed immediately to me.

Student Athletes: If you are a student athlete, please provide me with your travel and game schedule indicating when you will need to miss class to participate in athletic events. While travel for athletics is an excused absence, you will need to make up any missed work. Absences only on the travel letter will be accommodated.

Disabilities: If you have a disability that is documented with the Disability Support Services Office (DSS) and wish to discuss academic accommodations, please contact me as soon as possible. If you have a learning disability that has not been documented, you may contact the Disability Support Services Office (410-617-2602) for assistance.
Learning Outcomes: At the end of the term, if a student successfully completes the course, s/he will have achieved:

the following Undergraduate Learning Aims of the University:

- Intellectual Excellence
  - appreciation of and passion for intellectual endeavor and the life of the mind
  - appreciation of and grounding in the liberal arts and sciences
  - excellence in a discipline, including understanding of the relationship between one’s discipline and other disciplines; understanding the interconnectedness of all knowledge
  - habits of intellectual curiosity, honesty, humility, and persistence

- Critical Understanding: Thinking, Reading, and Analyzing
  - the ability to evaluate a claim based on documentation, plausibility, and logical coherence
  - the ability to analyze and solve problems using appropriate tools
  - the ability to use mathematical concepts and procedures competently, and to evaluate claims made in numeric terms
  - the ability to use information technology in research and problem solving, with an appreciation of its advantages and limitations

- Eloquentia Perfecta: the ability to use speech and writing effectively, logically, gracefully, persuasively, and responsibly

- Diversity: recognition of the inherent value and dignity of each person, and therefore an awareness of, sensitivity toward, and respect for the differences of race, gender, ethnicity, national origin, culture, sexual orientation, religion, age, and disabilities

the following Natural and Mathematical Sciences learning aims:

- develop their innate curiosity about the natural world and take a life-long interest in science news and advancements

- explore one or more of the central ideas that form the foundation for modern science

- understand the process of science - its methodology, how questions are framed, how data are acquired, how arguments are constructed and conclusions reached. In this context, students should learn what science is not and have the ability to recognize and reject pseudoscientific claims. In addition, students should also have the ability to recognize the limits of science. Students also should understand the relationship between science and technology and how the results of scientific discovery can be applied to the needs of society. Students should learn the linkage between experimental methodology and scientific content

- learn to reason mathematically, and to think critically and analytically through statistical or mathematical methods. Because of the close interrelationship between science and math, in each science course in the core, students will achieve a better understanding of the power of quantitative tools used in the particular discipline

- learn how recent technological advances have facilitated and accelerated scientific inquiry. They gain a realistic understanding of the potential and limitations of computation
and the following learning goals of the course:

- evaluate definite and indefinite integrals using various algebraic techniques
- demonstrate an understanding of the integral through various applications
- determine the convergence or divergence of sequences and series, including absolute and conditional convergence and radius of convergence
- define and use Taylor/Maclaurin series/polynomials
- use relations defined by parametric equations and polar coordinates for applications in Calculus

GENERAL SUGGESTIONS:

- This course will test your study and time management skills. The homework/WeBWorK exercises WILL be time consuming until you get the hang of them, so DO NOT put off the homework until the night before they are due. I cannot and will not give extensions on these due dates.

- Don’t use the fact that I don’t collect the book homework and I drop a quiz to blow them off. You might need that drop later on in case you get sick or do not do well. You will also need to know that material for the exams and later material!

- Participate in class, ASK QUESTIONS, make use of my office hours. If you get behind or stuck, see me or work with other students RIGHT AWAY.

- This course will be much more enjoyable if you form a study group with others in the class. You may work together on homework but everyone must join in and work.

- READ THE BOOK. Lectures will be much more understandable. It will be important to READ the book, not just look at the highlighted boxes because I will not be able to cover all of the details or show nearly enough examples in class.

- If you think you’ll need extra help, get it as soon as possible. Do not wait until right before an exam! There are tutoring services available – some are FREE.