Math 15300 (Section 51)
Calculus III, Spring 2015

Instructor: Jeffrey Manning
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Office: Eckhart 17 (in the basement)
Office hours: TBA
Class Website: http://math.uchicago.edu/~jmanning/Teaching/Ma15300_Spring15/
VCA: TBA

Lectures: 12:30-1:20 MWF at P 022
Problem Session: TBA

Textbook: Calculus: One Variable by Salas, Hille, Etgen. Tenth edition. We will roughly cover chapters 8, 9, 11 and 12, as well as parts of chapter 7.

Course description: The first 3-4 weeks of this course will cover further techniques of integration. Topics will include integration by parts, and partial fractions, as well as an introduction to differential equations. The remainder of the course will be devoted to sequences and series (as well as related topics such as limits and improper integrals). Topics will include: limits of sequences; L'Hôpital's rule; convergence tests for series; and Taylor series. In addition to the computational aspects of these topics, we will be emphasizing rigorous definitions and proofs. Students will be expected to construct proofs, or state definitions for certain statements on their homework and exams.

Homework: Homework sets will be assigned (almost) every week on Wednesday, and will be due at the start of class the following Wednesday. Problem sets should be stapled and written legibly (or typed). In addition, solutions should be clear and well-organized. The grader may impose a 10% penalty for solutions, which are otherwise correct, but are lacking in clarity. Students are encouraged to work in groups when solving the problems, but solutions must be written up independently. A good rule of thumb is that you should be able to explain every step of each solution that you hand in.

Late homework policy: Each student will be permitted one two-day homework extension per term, with no penalty. This means that if the homework was originally due on Wednesday, you would be allowed to turn it in during class on Friday. If you wish to use this extension, you must
notify me via email before the homework set is due. Additional extensions, or longer extensions, will only be granted in exceptional circumstances, and must be requested in advance.

**Midterms:** There will be two in-class midterms, probably occurring during 4th week and 8th week. Their (tentative) dates are:

- Midterm 1: Friday, April 24th (Week 4)
- Midterm 2: Friday, May 22nd (Week 8)

Students who perform poorly on the first midterm will be encouraged to switch to the 130s track.

**Midterm corrections:** After you receive your graded midterms, you will have the opportunity to submit correct solutions to the problems you missed. You should think of this as an opportunity to earn back (some of) the points you lost. You may treat this like a regular homework assignment – in particular you may get help from me, or from other students. Your score on this assignment will never be lower than your score on the corresponding midterm. If you chose not to submit this assignment, your score will be equal to your midterm score.

**Quizzes:** There will be a short (about 10 minutes) in-class quiz on most Fridays. Your lowest quiz score will be dropped.

**Final Exam:** There will be a two-hour final exam taking place at the end of the term. The precise date and time of the exam is set by the university, and is beyond my control. The final exam for this term will take place on **Thursday, June 11th from 4pm-6pm.**

It is the policy of the Department of Mathematics that the following rules apply to final exams in all undergraduate mathematics courses:

- The final exam must occur at the time and place designated on the College Final Exam Schedule. In particular no final examinations may be given during the tenth week of the quarter, except in the case of graduating seniors.
- Instructors are not permitted to excuse students from the scheduled time of the final exam except in the cases of an Incomplete.

**Grading policy:**

- Homework: 20%
- Quizzes: 5%
- Midterm 1: 15%
- Midterm 2: 15%
- Midterm Correction 1: 5%
- Midterm Correction 2: 5%
- Final Exam: 35%