Math 0060 — Calculus and analytic geometry II

Class Meets:	Monday, Wednesday, Friday, 1 PM – 1:50 PM, Roc A9
Instructor:	Douglas Iannucci
Office:	115 Kassar House
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Course website:	(TBD)
Office hours:	Friday, 2 PM – 4 PM, and by appointment
Recitation Sessions:	Thursdays, 7 PM – 8 PM, Kassar House 105

Course description

A slower-paced introduction to calculus for students who require additional preparation. Presents the same calculus topics as MATH 0090, together with a review of the necessary precalculus topics. So says the course catalogue. And the course catalogue is correct.

Prerequisites

The prerequisites are MATH 0050, or written permission.

Objectives

Our objectives are two-fold. First, students are expected to review the basics of precalculus and trigonometry. Second, students are expected to learn the basics of calculus. We will accomplish this through a series of homework assignments, quizzes, and exams. Students are encouraged to work together if they wish, but submitted work must be their own. As for the calculus, please refer below to the topics covered section.

Textbook

Thomas's Calculus—Early Transcendentals, (Thirteenth Edition), published by Pearson.

General Topics Covered

We plan to cover Chapters 4–7 in the text, and, time permitting, Chapter 8. Thus the expected topics covered include extreme values of functions, applying calculus to curve sketching, L'Hôpital's rule, optimization problems, Riemann sums, definite and indefinite integrals, the fundamental theorem of calculus, calculating volumes by cross-section or by revolution about axes, arc length, calculating areas by revolution about axes, the logarithm as an integral, exponentials, and various techniques of integration.

Grading

Quizzes	**10% of final grade**
Homework assignments (13 assignments)	**30% of final grade**
First Midterm (2 March)	**15% of final grade**
Second Midterm (9 April)	**20% of final grade**
Final Exam (16 May)	**25% of final grade**

Note: The Final Exam is on 16 May, at 9:00 AM in Barus & Holley 158.

Homework

- The quizzes will pertain strictly to **review** material. For this reason, quizzes will be open-book, and will usually be given during the recitation session on Thursday evenings.

- The midterms will not be cumulative. The final exam will be cumulative.

- Late homeworks will not be accepted.

Study guide for exams

1. §4.1: # 21–76.

2. §4.2: # 1–28.

3. §4.3: # 1–14, 19–56.

4. §4.4: # 9–80.

5. §4.5: # 7–66.

6. §4.6: # 1–58.

7. §5.2: # 17–18, 33–46.

8. §5.3: # 1–50, 55–62.

9. §5.4: # 1–56.

10. §5.5: # 1–66.

11. §8.2: # 1–52.

12. §8.3: # 1–22, 33–38.

13. §8.4: # 1–34.

14. §8.5: # 1–50.

15. §8.8: # 1–64.

Homework Assignments

1. Due 25 April: §8.2, # 4, 14, 22, 47, 48.

2. Due 27 April: §8.3, # 7, 20, 35, 47.

3. Due 30 April: §8.4, # 35, 36, 37, 38.

4. Due 2 May : §8.5, # 4, 6, 12, 18, 22.

5. Due 4 May : §8.8, # 1, 5, 25, 29.