Analytic Geometry & Calculus II
MATH175 - 03
Course information for Fall 2014

Professor: Dr. Somantika Datta
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Office hours: Tue (2.00 - 3.00), Wed (11.00 - noon), Thurs (2:00 - 3:00)

Class schedule: MTRF, 11:30-12:20, TLC 122

Text: W. L. Briggs & L. Cochran, *Calculus*, 1st Edition, Pearson Publishing Company.

Websites pertaining to the course:

1. Material for 175-03: www.webpages.uidaho.edu/sdatta/math175.html

2. General 175 website for all sections: www.webpages.uidaho.edu/math175/

3. Homeworks (MyMathLab): http://www.mymathlab.com/

4. Polya tutoring: http://www.webpages.uidaho.edu/polya/

5. Math 170 modules: http://www.webpages.uidaho.edu/polya/math170/modules/

Course Topics:

- Inverse trigonometric functions (Section 7.5)

- L'Hôpital's Rule (Section 4.7 & 7.6)

- Integration techniques: by parts, trigonometric substitutions, partial fractions, improper integrals, numerical integration (Chapter 8)

- Sequences and infinite series (Chapter 9)

- Power series (Chapter 10)

- Parametric curves and polar coordinates (Chapter 11)

- Arc length and surface area as integrals (Chapters 6 & 8)

Quizzes: There will be in-class quizzes held roughly every other week. The quizzes will test one of the homework problems.

Homework: Online homework by MyMathLab is available on http://www.mymathlab.com/ will generally be due at 11:55PM two days after it is assigned. Course ID: datta08212

Written homework will be collected roughly every other week. Part of your grade on all written work will be based on neatness and correct mathematical notation. Your work should be organized and easy for me to read or else you will lose points. Specifically, for homeworks, write your name in the top right-hand corner, staple your work in the top left-hand corner, use only the front side if using engineering paper, tear off any fringes, and leave plenty of space between problems.

Exams: All exams will be in class, closed-book and closed-notes. Calculators will not be allowed.
Midterm 1: **Friday, 12 September**
Midterm 2: **Thursday, 9 October**
Midterm 3: **Thursday, 30 October**
Midterm 4: **Friday, 21 November**
Final: **Monday, 15 December, 12.30 - 2.30**

Grades: Your final grade for the semester will be assigned according to the standard 90-80-70-60% scale based on:

Online homework - 50 points
Quizzes & Collected homework - 100 points
Midterms - 400 points (100 points each)
Final - 150 points

out of a total of 700 points.

Make-up policy: If you have a *University excuse*, a make-up test will be allowed if you contact me prior to the time of the test. *An excused absence is defined by University of Idaho policy as a) an approved field trip or other official UI activity; b) confinement under doctor's orders; c) call to military duty; or d) leave of absence granted by student's academic dean.* For a planned excused absence, I expect you to tell me now or as soon as you know, and I expect you to take the test before the absence. Regular, non-emergency, dental and doctor check-ups should be scheduled at a time when you are not in class.

Email etiquette: When contacting me with questions or concerns via email please craft your message in a professional manner. In particular, your message should have a subject line, should be addressed properly, and should contain your signature and your student ID, otherwise, I will not respond to your message.

Academic dishonesty: I assume that all students will be honest and do their own work. If a student is caught cheating at any time, that student will be assigned an F for the course and referred to the Dean of Students.

Learning outcomes:

- The student will master the standard integration techniques, and develop the ability to judge which techniques are appropriate on given problems.

- The student will master more advanced topics from integral calculus such as l'Hospital's Rule and improper integrals.

- The student will be able to set up definite integrals for computing quantities such as areas, arc lengths, and surface areas, whether in rectangular or polar coordinates.

- The student will understand the basic definitions of sequences and series, as well as the fundamental notions for power series representation of functions.

The tests will serve as an assessment tool for the learning outcomes. A sample assignment is Section 7.6, #8 of the textbook.