Basic Course Information: Math 125 A & B Autumn 2016

Instructor: Daniel Pollack Office: Padelford C-550

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phone: 543-1809.

Office Hours: Mondays 12:00-1:00 pm and Tuesdays 1:00-2:00 pm in PDL C-550

Visit the class website (and explore each of the links). The URL is: www.math.washington.edu/~pollack/courses/Aut16/125AB.html

Teaching Assistants:

Jordan Weaver (AA and AB)

David Clancy (AC and AD)

Nathan Lee (BA)

Gerardo Zelaya-Eufemia (BB)

Nicolas Courts (BC and BD)

(See your course schedule for the location of your TA sections.)

Note: You must go to the lecture and section for which you are registered.

Course schedule:

- Mon, Wed, Fri: 50mn lectures Thomson Hall (THO) 101
 - M125 A: 9:30 10:20
 - M125 B: 10:30 11:20
- Tuesday, 50 minute section with TA
 - HW Question and Answer period
 - ► Homeword based Quizzes on non-midterm weeks
- Thursday, 80 minute section with TA
 - ▶ HW Question and Answer period
 - ▶ In class Worksheets (which you must print out beforehand and bring with you to do in section)
- Homework
 - ▶ All homework is accessible and turned in online using WebAssign.
 - ► Assignments are visible at least 9 days in advance of due date.
 - ► Complete the assignment by the following Monday (Quiz Tuesday!)
 - ► HW usually due (WebAssign submissions close) Wednesdays at 11:00pm

Important dates:

- Thursday, October 20, First Midterm
- Thursday, November 17, Second Midterm
- Saturday, December 10, 1:30 4:20pm Final Exam.

NOTE: There are no makeup Midterm Exams.

Grading information: Your final grade will be based on your total score computed as follows:

- 10 % Worksheets
- 10 % Weekly homework assignments
- 5 % Quizzes drawn from HW
- 20 % First Midterm
- 20 % Second Midterm
- 35 % Final Exam

"The final median course grades for each lecture section of Math 124/5/6 taught during the regular academic year will fall within the range of 2.9 ± 0.2 ."

Announcements

- The textbook for the course is "Calculus" by Stewart, vol.1 available in the UW bookstore. This is a portion of the hardbound text "Calculus, 7th Edition, Early Transcendentals" by Stewart. Either text will work. The custom version vol. 1 covers Math 124/125 at UW.
- Familiarize yourself with the class website before going to your TA section tomorrow.
- Print out and bring the first worksheet "The Area Problem" with you to your section on Thursday (tomorrow!).
- Assigned reading for the week sections 4.9, 5.1 and 5.2.
- Homework #1 (125 HW 1ABC, all 3 parts) should be completed by Monday night, October 3. Due Wednesday, October 5, 11:00pm.

Today

- Basic course information (see "Daily Highlights" in the course web page)
- 4.9: Antiderivatives

What am I expected to know?

0. Algebra

1. Trigonometry:

- Trigonometric functions
- Fundamental trigonometric identities,
- Inverse trigonometric functions.

2. Math 124:

- Definition and geometric interpretation of derivative in terms of slopes; derivative = instantaneous rate of change.
- Rules for differentiating all the common functions (powers, trig functions, exponential, logarithm).
- Chain Rule, Product Rule, L'Hospital's Rule. Mean Value Theorem.
- 3. Special functions: Properties of exponential and logarithmic functions.

Definition

A function F is called an **antiderivative** of f on an interval I if F'(x) = f(x) for all x in I.

Theorem

If F is an antiderivative of f on an interval I, then the most general antiderivative of f on I is

$$F(x) + C$$

where C is an arbitrary constant.