MATH V1201, SECTIONS 5 & 7

Calculus III, Spring 2016

1. Essentials

Meeting time:
Section 5: Tuesdays & Thursdays, 1:10pm-2:25pm *Location:* 312 Mathematics Building
Section 7: Tuesdays & Thursdays, 10:00am-11:25am *Location:* 312 Mathematics Building

Instructor: Daniel Halpern-Leistner

Office: 716A (no elevator access, please contact me for special arrangements if needed)
Email: danhl@math.columbia.edu
Webpage: `https://www.math.columbia.edu/~danhl/2016S.html`
Office hours: Mondays 11:00 AM–12:00 PM, or by appointment.
Book: James Stewart, *Calculus: Early Transcendentals*, 8th edition. For more information: `http://www.math.columbia.edu/programs-math/undergraduate-program/calculus-classes/#textbook`
WebAssign class key: columbia 2269 4413
Through WebAssign, you will have access to an e-book version of the textbook.

Piazza page: Please sign up for the class on Piazza here: `https://piazza.com/columbia/spring2016/mathv1201`.
Teaching Assistants: Jingwei Xiao, Stanley Sandoval, Ariel Hillman, Jee Whan Yoo

2. Overview

Welcome to Calculus III! The topics you will be learning about this semester are

- vectors and the geometry of space (Section 10.5 and Chapter 12),
- vector functions (Chapter 13), and
- functions of several variables and partial derivatives (Chapter 14).

The prerequisite material for this course is covered in Calculus I. Familiarity with the material of Calculus II is helpful but not essential. Please let me know if you have any questions regarding whether this is the right course for you.

3. Resources

Many find calculus to be a challenging subject, so I strongly encourage you to make use of the resources at Columbia and beyond that may help you learn the essential ideas of the course. You may ask questions about the subject material on the course Piazza page, `piazza.com/columbia/spring2016/mathv1201/home`. The questions may be relevant to specific homework questions, but they should not resemble "what is the answer to #10?" I will be reading and responding to questions there. Furthermore, you can receive extra credit by answering your classmates' questions on Piazza.

I also strongly encourage you to take advantage of these other resources:

- the WebAssign system, which has tutorials on the material of the course
- the Columbia (406 Math) and Barnard (333 Milbank) Help Rooms, for which the weekly schedules can be found at:
  `http://www.math.columbia.edu/general-information/help-rooms/`
- my office hours, *tentative* times for which are listed above; if these times do not work, you may schedule an appointment instead
- Columbia tutoring services, information about which can be found at:
  `http://www.math.columbia.edu/general-information/tutoring-services/`
- online resources, including for instance Khan Academy:
  `https://www.khanacademy.org/math/multivariable-calculus`

4. Grading policy

There will be two midterms and one final. There will also be weekly homework assignments.

Grade breakdown:

- Midterms: 20% each
- Final exam: 40%
- Homework and quizzes: 20%

The grade distribution will be consistent between the different Calculus III sections.

Midterms: In class on February 18 (Thursday) and March 31 (Thursday).

Final: (TBA)

Exam policies: No electronic devices or study aids/notes of any kind are allowed on the exams or quizzes. (Calculators are *not* allowed.)

There are no make-up exams. If exceptional circumstances arise, let me know as soon as possible so an arrangement can be made. You will need to provide a letter from the dean.

Homework: Part of the assignment will be submitted through WebAssign. Some weeks might include a written part, which should be dropped in the section mailbox outside 410 Math, *before* the start of class on Tuesday. ***Clearly print your name and UNI and staple all pages of your assignment.*** Assigned problems will be posted on CourseWorks and the course webpage. If there are any issues with WebAssign (i.e. not accepting a correct answer) please email me a screenshot of the page with your answer and I will fix the grade.

Late homework will not be accepted. To compensate, the lowest two grades of all your assignments will be dropped.

Quizzes: There will be a short quiz every Tuesday at the beginning of class. *There will be no makeup quizzes.* To compensate, your two lowest quiz grades will be dropped.

Collaboration: You may freely discuss homework problems with other students, but ***you must write the answers in your own words.*** You must enter the WebAssign homework answers yourself, and you must fully understand how to obtain the solutions you enter there.

Integrity: Please read the Faculty Statement on Academic Integrity:
https://www.college.columbia.edu/academics/integrity-statement

5. Special accommodations for students with disabilities

In order to receive disability-related academic accommodations, students must first be registered with the Disability Services (DS). More information on the DS registration process is available online at:
http://health.columbia.edu/disability-services/
Registered students must present an accommodation letter to the professor before exam or other accommodations can be provided. Students who have, or think they may have, a disability should contact DS promptly for a confidential discussion.

6. Schedule

On the course web page you will find a *tentative* schedule: http://math.columbia.edu/~danhl/2016S.html. The contents of each class may also vary slightly during the semester. Please read the relevant book sections before classes. Periodically throughout the semester, I will also assign video lectures which should be viewed before in class lecture.