

MATH 2443–Section 006 Honors Calculus IV

This is the information sheet for Honors Calculus IV, MATH 2443–Section 006, for the Spring Semester 2009. It is your responsibility to acquaint yourself with all the information in this handout, and with any modifications to it that may be announced in class.

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Office Hours: Mon 1:30-2:30, Thu 2-3, Fri 3-4.

Text and Course Outline: We shall cover Chapters 15 through 17 of the textbook; *Calculus* (6th Edition), by James Stewart.

In Chapters 15 and 16 we redo all Calculus I and II material (basic differentiation and integration), but this time for functions which can have more than one input variable. This leads to some ideas which you will feel comfortable working with from the start (such as partial derivatives, and the anti-differentiation parts of computing multiple integrals), some concepts which will seem familiar but will involve a new twist (such as the chain rule and the multi-variable version of the second derivative test and max/min problems), and some entirely new creatures such as Lagrange multipliers, and gradient vectors.

In Chapter 17 we will study vector calculus. Two procedures which you will have to master are how to compute line integrals, and how to compute surface integrals. Then we will learn about three beautiful higher dimensional versions of the Fundamental Theorem of Calculus; Greens Theorem, Stokes Theorem, and the Divergence Theorem. There'll be lots of cool applications along the way.

Lectures: You are expected to attend all lectures, and are responsible for all information given out during them. In particular, this includes any changes to the quiz/midterm dates or content.

Your participation is important in lectures. At a minimum, you will have to periodically get up to the board and write out solutions to homework exercises. Ideally, you will participate in classroom discussions. As in any course, you will optimize your gain from the lectures if you try to read the relevant sections of the textbook **before** attending class.

Grading Scheme: Grades will be assigned by weighting your totals from Homeworks, Quizzes, Midterms, and a Final Examination as follows:

<i>Homeworks</i>	18%
<i>Quizzes</i>	3%
<i>Midterm Total</i>	54%
<i>Final Examination</i>	25%

The total number of points in the course is 100. Grades are assigned on the following scale:

A : 85 – 100, B : 70 – 84, C : 55 – 69, D : 40 – 54, F : 0 – 39.

Here is a detailed description of each of these components.

Homework: Homework will be due at the **start** of class on Mondays and Fridays. You are responsible for ensuring that your homework gets turned in on time. Late homework will not be accepted; it upsets the grading process and is unfair to other students.

The homework assignments are there to provide you with a **minimum** level of exposure to the materials outside of class time. You will need to do many more problems before you feel comfortable with the concepts involved. Take it from experience (of generations of students!) that the way to succeed in a math course is to work (and understand) a large number of problems.

Quizzes: Six 10-minute Quizzes are held in class during regular lecture times. Here are the (approximate) quiz dates.

<i>Quiz 1:</i>	Wednesday	Jan. 28.	<i>Quiz 4:</i>	Wednesday	Mar. 11.
<i>Quiz 2:</i>	Wednesday	Feb. 11.	<i>Quiz 5:</i>	Wednesday	Apr. 15.
<i>Quiz 3:</i>	Wednesday	Feb. 25.	<i>Quiz 6:</i>	Wednesday	Apr. 29.

Midterms: There are three midterms, two of which are held during regular lecture times in the usual classroom, and the third is a set of extra homeworks. They are held/due on the following dates:

Midterm 1: Wednesday, Feb. 18.

Midterm 2: Wednesday, Apr. 1.

Midterm 3: Last part due on Friday, May. 1.

Final Examination: The final examination is cumulative. It is scheduled for Thursday, May 14 from 8:00am until 10:00am, and is held in the usual classroom — PHSC 117.

The final examination schedule for all your classes is available online

http://www.ou.edu/enrollment/home/final_exams.html

Taking Examinations: Here are a few notes on taking Examinations.

- I will hold extra Office Hours and/or schedule Review Sessions before the Midterms and Final Examinations. You are strongly encouraged to attend the Review Sessions, and to attend Office Hours regularly.
- You cannot use calculators/computers, books or any type of notes during the examinations.
- All examinations must be taken at scheduled times, except in *very extreme circumstances*. So be careful not to make travel arrangements that conflict with examination times. If you cannot take an examination at a scheduled time, you should contact me *well in advance of the test time*. Otherwise, an absence at an exam will result in a score of zero.

Policy on W/I Grades: Check out the academic calendar at

http://www.ou.edu/admissions/home/academic_calendar.html

Until Jan 16, there is no record of grade for dropped courses. From Jan 20 through March 2, you may withdraw and receive an automatic W grade, *no matter what scores you have so far achieved*. From March 2 onward, the grade for a dropped course is either W or F; you will need to see me about grades if you wish to withdraw. From April 6 on, University regulations specify that you may withdraw only with the permission of the College Dean.

Students who are failing the course should not expect to receive an “I” grade in place of a “W” grade. I will only consider assigning an “I” grade if the situation satisfies the following criteria.

1. the student is already maintaining a passing grade,
2. the student has completed most of the course work, and

3. the student can demonstrate that he/she is unable to complete the work at this time due to circumstances beyond his/her control.

Academic misconduct: Visit <http://www.ou.edu/provost/integrity> for the rules governing cases of academic misconduct. See also the *Academic Misconduct Code*, which is part of the *Student Code* and can be found at <http://judicial.ou.edu/content/view/27/32/>.

Accommodation of Disabilities: The University of Oklahoma is committed to providing reasonable accommodation for all students with disabilities. If you require special accommodation in this course you are requested to speak with me as early in the semester as possible. Students with disabilities must be registered with the Office of Disability Services prior to receiving accommodations in this course. The Office of Disability Services is located in Goddard Health Center, Suite 166, phone (405) 325-3852 or TDD only (405) 325-4173. Their website is at <http://drc.ou.edu>.

Religious Holidays: It is the policy of the University to excuse absences of students that result from religious observances and to provide without penalty for the rescheduling of examinations and additional required class work that may fall on religious holidays.

Students who plan to observe a religious holiday which may conflict with a class time, should notify me as soon as possible (preferably within the first week of the semester), so we can make appropriate arrangements.