

MATH 201
MULTIVARIABLE CALCULUS, SPRING 2009

SYLLABUS

Text: Thomas' Calculus, 11th Edition, Part 2.

Course Description: This course is about calculus of functions of several variables, especially two or three variables. We will cover Chapter 12–16 of the textbook. Topics includes: Vectors in the plane and in space, vector functions and motion, surfaces, coordinate systems, functions of two or three variables and their derivatives, maxima and minima and applications, optimization, double and triple integrals in various coordinate systems, vector fields, and Stokes theorem.

There will be three lectures per week by your instructor and a two hour optional review session. You are required to read the relevant material from the textbook. Be aware that the course is fast-paced and it is important to keep up with the reading and homework in order to do well. Resources are as follows:

- Review Session 7:30–9:30pm, Tuesday at 314 Fine Hall by Professor Oblomkov.
- Frist Study Hall 300-level of the Frist Campus Center, Sun Wed 7:30–10:30pm.

Grading: There will be weekly homework assignments, 2 take-home quizzes, a midterm exam, and a final exam. Each part counts as follows:

Homework 10%
Quizzes 10%
Midterm 30%
Final exam 50%

The midterm exam will be 90 minutes long. The final exam will be 3 hours long and will be held during the finals period. The exact date/time/location of each exam will be posted on the blackboard and mathematics department web page and announced in class as soon as it is available.

Homework problem sets are from the textbook and are due at the beginning of class on Mondays. Late homework will not be accepted. Instead, the lowest homework score will be dropped. You are encouraged to discuss the homework with fellow students and to attend help sessions such as the Frist Study Halls but please write up the assignments on your own. Write your name legibly, staple all pages together, write clearly in sentences, and

circle your answers whenever appropriate.

There will be 2 take-home quizzes, which will be the same for all sections. The first quiz will be on the 4th week and the second one will be on the 10th week. The quizzes will be 60 minutes long and they will be posted on-line. To take a quiz at home, set aside an hour during which you will concentrate solely on the quiz. Under the Honor Code, you are to write the quiz on your own, without interruptions and using no more than the allotted length of time. Aids such as books, notes, or calculators are not allowed. Once you are done, write out and sign the Honor Pledge and staple any extra pages you may have used to your quiz. Don't discuss the quiz with anyone before 2 PM on the due date, whether you have already written it or not. If you miss a quiz for a legitimate and inevitable reason, you can make it up, but this has to be done ASAP. Once the registrar has announced the midterm exam schedule, inform your instructor immediately if you have a legitimate conflict. Conflicts with the officially scheduled final exam must be resolved through the registrar's office. In case of an emergency that prevents you from taking the midterm or the final, you need to contact the Registrar and the Instructor in charge of the course immediately.

HOMEWORK ASSIGNMENTS

The homework problems are from Thomas' Calculus 11th Edition.

Homework 1: Due Feb 9

12.1: 20,50,53,54

12.2: 24,28,40,

12.3: 2,10,18,29

12.4: 8,16,22,36

Homework 2: Due Feb 16

12.5: 6,24,28,43

12.6: 1–12

13.1: 8,12,24,40

13.3: 6,14,16

Homework 3: Due Feb 23

14.1: 4,6,12,30,39

14.2: 12,18,22,37,55

14.3: 4,12,20,40,48

Quiz 1. Due Feb 27**Homework 4:** Due Mar 2

14.4: 2,4,14,22,31,34

14.5: 6,8,14,18

14.6: 4,10,22,26,30

Homework 5: Due Mar 9

14.7: 10,18,28,32,38,42

14.8: 4,8,16,24,29,38

14.10: 4,10(quadratic only), 12

Homework 6: Due Apr 6

15.1: 10,14,26,36,54

15.2: 8,14,16,24,32

15.3: 4,12,20,25,32

Homework 7: Due Apr 13

15.4: 6,14,20,25,30,38

15.5: 6,14(a,b)

15.6: 4,8,16,20,22,34,44

Homework 8: Due Apr 20

15.7: 2,4,10,16,20

16.1: 10,14,20,24,26

16.2: 2,14,20,24,32

Homework 9: Due Apr 27

16.3: 4,6,8,10,14,22,30

16.4: 6,8,14,18,22,24,26,34

Quiz 2. Due May 1

Homework 10: Due May 4

16.5: 2,6,10,16,20,30,34

16.6: 4,6,10,18,26,36,40,50

Homework 11: Due May 11

16.7: 2,6,10,16,18,20,26

16.8: 6,10,14,18,20,24

pg.1226: 58,60