Math 254 - 50487 - Vector Calculus I
Syllabus - OSU - Spring 2011

Instructor: Filix Maisch  e-mail: maischf@math.oregonstate.edu
Meetings: MWF 3 - 3 : 50 PM  phone: 541-737-7127
Room: Weniger 149  office: Kidder 332
off. hrs: MWF 11 - 11 : 50 AM, Thurs. 1 - 1 : 50 PM, or by appt. (Thurs. in MLC).
Text: Multivariable Calculus, Briggs, Cochran
Web: people.oregonstate.edu/~maischf/

Attendance: Regular attendance will be expected, but roll will not be taken.

Honor Code: Students are expected to be familiar with Oregon State University’s Statement of Expectations for Student Conduct. Please review this statement at the following web link:
http://oregonstate.edu/admin/stucon/achon.htm

Accommodations: Accommodations are collaborative efforts between students, faculty and Disability Access Services (DAS). Students with accommodations approved through DAS are responsible for contacting the faculty member in charge of the course prior to or during the first week of the term. Students who believe they are eligible for accommodations should contact DAS immediately at 737-4098.

Course Description: This course covers the following topics: Vectors, vector-valued functions, curves in two and three dimensions, surfaces, partial derivatives, gradients, directional derivatives and multiple integrals in rectangular, polar, cylindrical, and spherical coordinates. Physical and geometric applications are included.

Schedule: See web for tentative term schedule.

Evaluation: Your grade is determined by online homework, recitation quizzes, a midterm and a final. Here is the point breakdown:

- Homework - 70 (Multiply your average homework percentage by 70 and round up.)
- Quizzes - 80 (Top eight of nine recitation quizzes worth 10 points each.)
- Midterm - 100 (Tuesday, April 26th, 6 - 7 : 20 PM.)
- Final - 200 (Wednesday, June 8th, 7 : 30 - 9 : 20 AM.)

Grades will not be harder than:
405 - 450 A/A-, 360 - 404 B+/B/-, 315 - 359 C+/C, 270 - 314 D, 0 - 269 F.

I do not use blackboard. A “keep track of my own grade” sheet is included at the end of this syllabus.

Homework: Homework is online. See the instructions on the web, where there is also a list of suggested exercises from the text.

Course ID: maisch69687  Course Name: Math254Section50487MWF3PM

Resources: The Math Learning Center is in Kidder 108H and is a great place to drop in for help. It is open from 9 AM to 4 PM, Monday through Friday, from the second week onward. I will be in there on Thursdays.
Tests and Quizzes: Closed book/notes recitation quizzes are on the tentative term schedule. The midterm/final exam dates will be announced. You are allowed one 3x5 inch handwritten note card for the midterm and for the final exam. Your TA will decide on the specific quiz make-up policies.

Specific Learning Outcomes:

1) Understand what vectors are, be able to represent them both algebraically and geometrically. Be able to solve problems using vectors and vector techniques including the dot and cross products.

2) Understand the notion of continuity and differentiability for functions of several variables. Be able to compute partial derivatives, directional derivatives and gradients.

3) Integrate and differentiate vector functions. Evaluate multiple integrals in rectangular, polar, spherical, and cylindrical coordinates.

4) Solve problems of multi-variable Calculus including being able to evaluate extreme (max-min) values for functions of several variables, analyze particle motion, represent parametric curves.

Write down your scores!

(1) Quiz 1: ......out of 10

(2) Quiz 2: ......out of 10

(3) Quiz 3: ......out of 10

(4) Quiz 4: ......out of 10

(5) Quiz 5: ......out of 10

(6) Quiz 6: ......out of 10

(7) Quiz 7: ......out of 10

(8) Quiz 8: ......out of 10

(9) Quiz 9: ......out of 10

(10) Best 8 of 9 Quizzes: ......out of 80

(11) Homework: ......out of 70

(12) Midterm: ......out of 100

(13) Final: ......out of 200