

**Math 2573**

**Honors Calculus III**

**Fall 2015**

**Instructor:** Peter Webb  
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**Course Site:** <http://www.math.umn.edu/~webb>  
**Office Hours:** 11:15-12:05 MWF or by appointment.  
**Text:** Susan J. Colley, Vector Calculus (4th edition), Pearson.

### **Course Content**

We will go through Colley's book. We start with basics of linear algebra and linear geometry: equations of lines and planes, matrices, angles and distances between linear objects. This is followed by the derivative when there are several variables, with applications like finding local maxima and minima of functions of several variables. We conclude with integrals of several variables over curves, surfaces and regions of 3-space, the interpretations of these and the theorems of Green, Gauss and Stokes.

### **Course Assessment**

There will be three full-period mid-term exams, to be held on **Thursday October 8**, **Thursday November 12** and **Thursday December 10**. The final exam will be held at the scheduled time as announced in the Class Schedules, which is **1:30-4:30 Thursday December 17**. The final exam will probably not be held in our usual classroom. It is one of the common final exams. You will also have homework and quizzes organized by the TA in recitations. Your final grade will be made up of homework and quizzes 20%, mid-term exams 15% each, final exam 35%.

### **Homework and Quizzes**

Homework will be due on Thursdays, starting Sept 17. I will assign a list of homework questions by either Monday or Wednesday the week before, giving 8 or 10 days before the homework is due. There will also be a short quiz at the beginning of most of the Thursday recitation periods on the topics covered in the homework due that day. The first quiz will be on Thursday September 17 and quizzes will continue each Thursday unless there is an exam, or unless it is Thanksgiving.

Aside from this, your TA will be in charge of dealing with homework and quizzes and is ultimately responsible for what homework you do, what happens to that homework (whether it is graded or not) and how the quizzes are administered. This means that your TA determines their own policy for things like what happens if homework is late or what happens if you miss a quiz. If you want to know whether it is possible to miss a quiz or something of that kind, ask your TA. The professor for the course will not know the answer! It is my expectation, however, that your TA will drop the lowest quiz score.

### **Absence from exams**

Missing a midterm is permitted only for the most compelling reasons. Except in extraordinary situations, you should obtain permission from the **professor** to miss an exam in advance; otherwise you will be awarded a 0. These situations include absences due to recognized

University related activities, religious holidays, verifiable illness, and family/medical emergencies. With rare exceptions, if you are excused from taking a midterm, your course grade will be determined by giving extra weight to the final exam, not by taking a make-up exam. No make-up quizzes will be given (the lowest score will be dropped). Students missing the final exam either fail the course or get an incomplete, provided they satisfy the conditions for this.

### **Attendance**

Students are expected to attend all lectures and recitations. Attendance may be checked and included in the grade line.

### **Expectations of written work**

In a number of cases in the homework problems and the questions in the exams you will not get full credit if you simply write down the correct answer. To get full credit you will need to write an explanation of how you got your answer. Where explanations need to be given, these should be written out in sentences i.e. with verbs, capital letters at the beginning, periods at the end, etc. and not in an abbreviated form.

I encourage you to form study groups. However everything to be handed in must be written up in your own words. If two students hand in identical assignments, they will both receive no credit.

### **Prerequisites**

Grade of at least C- in Math 1572H (or equivalent).

### **Computers and Calculators**

Everyone should have a graphing calculator. Other electronic equipment may not be used or be available during quizzes and exams. Calculators will be allowed on some quizzes and exams.

### **Incompletes**

These will only be given in exceptional circumstances. A student must have satisfactorily completed all but a small portion of the work in the course, have a compelling reason for the incomplete, and must make prior arrangements with the **professor** for how the incomplete will be removed, well before the end of the quarter.

### **Academic Dishonesty**

Academic dishonesty in any portion of the academic work for a course shall be grounds for awarding a grade of F or N for the entire course.

Date of this version of the schedule: 8/29/2015