Course Information: Math 126 B
Summer Quarter 2012


Lectures. MWF 9:40 - 10:40am DEN 211
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Office Hours. 3-4pm TTh in Math Study Center, or by appointment.

Quiz Sections. TTh 9:40 - 10:40am SIG 225
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Office Hours. 2-3pm T in the office, 2-3pm Th in Math Study Center

General information. This is the third and the most difficult course in the 124/5/6 three quarter sequence. It covers analytic geometry, differential geometry, partial derivatives, double integrals, and Taylor polynomials and series, usually in the order as listed below.

Prerequisites. Math 124, Math 125, grade 2.0. You should be familiar with differential and integral calculus of functions of one variable.

Do you need this? This course is often chosen by future science, engineering, chemistry or biology majors. It is a prerequisite for such majors. For math majors, we have another sequence: the Honors Calculus Sequence Math 134/5/6. For business and humanities students, we have yet another sequence: Math 111/112.

Required Materials. 1. Multivariable Calculus, by James Stewart (this is a custom text for UW you may also use Calculus: Early Transcendental, 7th Edition, by Stewart). Chapters 10, 12-15 (however, we will not completely cover them).
2. During the last few weeks of the quarter, we will be using Taylor Notes on Taylor polynomials and Taylor series, instead of Chapter 11 from the book. You will be expected to download these notes from the course website. The direct link is: http://www.math.washington.edu/ m126/TaylorNotes.pdf.
3. You will have to use Webassign, online homework grading system. You will purchase the key to this system together with the book at the University Bookstore. See ”how to use Webassign” below.

Homework. Homework is due twice a week, on Tuesdays and Thursdays at 11:00pm. There are 12 due dates throughout the quarter. Each homework assignment becomes visible at 12:00am on Monday of the week preceding the week of the due date. Only the sum of all homework grades will influence the course grade, and this is what is going to be on Catalyst Gradebook.
You will use Webassign: https://www.webassign.net/washington/login.html.

**Quizzes and Exams.** There are three quizzes, two midterms and the final exam:

- **Quiz 1.** Thursday, June 28, covers 12.1 - 12.5;
- **Midterm 1.** Tuesday, July 10, covers 12.1-12.6, 10.1 - 10.3, 13.1 - 13.4;
- **Quiz 2.** Tuesday, July 17, covers 14.1, 14.3, 14.4, 14.7;
- **Midterm 2.** Thursday, July 26, covers 14.1, 14.3, 14.4, 14.7, 15.1 - 15.5;
- **Quiz 3.** Tuesday, August 7, covers Taylor Notes 1 - 3;
- **Final Exam.** Wednesday, August 15, covers all course material.

Each quiz contains two problems and is delivered on a quiz section, in the last 30 minutes. The first 30 minutes are devoted to homework questions and answers.

Each midterm contains five problems and is delivered on a quiz section, it lasts for one hour.

The Final Exam also contains five problems and is delivered on Wednesday, August 15, during the lecture. It also lasts for one hour.

There are two levels of problems: easy and difficult. Each quiz contains two easy problems, and both midterms and the final contain three easy problems (1-3) and two difficult ones (4, 5). Each problem is worth 10 points.

**Grading.** 16% homework, 8% each quiz, 20% each midterm and the final. 16% + 3 · 8% + 3 · 20% = 100%. Each quiz, midterm and final problem adds about 4% to your final grade.

Each quiz, midterm and final will be graded the same day and handed back to you the next day.

Each quiz and midterm will be given back at the beginning of the lecture (on Wednesday or Friday). Regrade requests can be made during the week following this exam. E.g. you can request a regrade for Quiz 2 until July 23, including this day.

The Final Exam will be given back on Thursday, August 16, on the quiz section. The instructor, and not the TA, will deliver this quiz section. This is the day before the last day of classes. So you can ask for a regrade only on that day! By the lecture on the last day, August 17, final grades for the course will be given. I will regrade final exams and give them back on this last day.

**Make-Ups.** Late homework will not be accepted for any reason. You will be allowed to miss one homework assignment without penalty to your grade. In case of observance of religious holidays or participation in university sponsored activities, arrangements must be made at least 2 days in advance for quiz and 1 week in advance for exams. You will be required to provide documentation for your absence. Make-up exams will not be given. If you miss an exam due to unavoidable, compelling, and well-documented circumstances, your final exam will be weighted more heavily.

**Calculators and notes.** You will need a scientific calculator for Math 126. It must have trigonometric functions, like sin and cos, as well as logarithms and exponentials (ln and exp). GRAPHING CALCULATORS ARE NOT ALLOWED on quizzes and exams in Math 126. A
graphing calculator is any device with a multiline display that has the ability to graph mathematical functions. See your TA before the first midterm if you are not certain if your calculator is acceptable. A single, hand-written 8.5 x 11 inch sheet of notes is allowed during exams. You may write on both sides.

Math Study Center. The Math Study Center (located in Communication B-014) is a great place for students to work on math, WHETHER OR NOT THEY NEED HELP. We are not a tutoring center in the traditional sense. We provide a comfortable place and a supportive atmosphere for students to come together and study, in groups or individually.

We have on staff a number of tutors (both graduate student TA’s and advanced undergraduates) who will sit down with students and answer questions to help them get unstuck. We do not provide long blocks of uninterrupted one-on-one tutoring. Textbooks, calculators and other study materials are available to be checked out for in-room use.

We are located in the basement of the Communications Building, room B-014. Summer Hours: Monday - Thursday: 11:00am - 5:00pm. http://www.math.washington.edu/msc/

Quiz Sections. You will have quiz sections on Tuesday and Thursday with a teaching assistant (T.A.). You will work on problems with your TA, who will check the attendances and give you a participation grade. Most of the time, the TA will have no prepared agenda and you, the students, will guide the discussion of the class by asking questions.

PLEASE, PLEASE, PLEASE COME PREPARED TO ASK QUESTIONS!!! The TA may even completely work through some of the problems. You need to help and guide your TA by looking at the problems before quiz section and asking lots of questions.

RESPECT YOUR TA!!! Your TA is a student as well. Many of them are taking hard classes, preparing for doctoral preliminary exams, and/or working on writing 100 page dissertations. In addition, they are paid a relatively meager wage. Before you criticize your TA, you should ask yourself what you would do in their position. The point is: Help them out by bringing good questions to quiz section and make sure to thank them for the time they are giving you.

Respect Issues. Disrespect will not be tolerated. As with all your life, you should treat others better than you yourself would like to be treated. Come to class on time (better never than late) and do not leave class early. If you can special circumstances where you need to arrive late or leave early, please contact me ahead of time and sit close to the door so that you do not distract your classmates when you enter or exit.

Do not use electronic devices during class. If you want to listen to your iPod, text messages your friends, or plays around on your computer, then dont come to class. This is completely disrespectful to me and your classmates so please put away and turn off your electronic devices before class.

Finally, please show me respect when you have a question for me or when you send me an e-mail. You are well within your right to ask about homework and exam grading, but you will get nowhere if you are argumentative or rude. I will do everything I can to help you all succeed in this course. I put in a lot of extra time and effort to help each of you in any way that I can. And this effort along with the effort of your TAs deserves and demands your respect! We should all be working together, not against one another.

Class Philosophy. There are two vital rules for success in my classroom.
1. THE HOMEWORK IS THE KEY: In mathematics, breakthroughs in learning rarely occur while reading the text or attending lecture. Mathematics is truly learned when you completely solve a problem yourself and understand the underlying concepts and tools so as to be able to apply them to related problems. The lecture, tutorial sessions, and office hours are valuable tools in guiding you towards learning and discovery, but ultimately the concepts and solutions must be absorbed, understood, and applied by you alone.

Treat each problem as an exam question and ask yourself, Can I answer this question without any help and do I understand the underlying principles that this problem conveys? If your answer is no to either of these question (or if you hesitate at all), then you need more studying and practice.

2. ASK FOR HELP: Most students will hit a wall at some point during the course. Some cant handle the large workload, while others find difficulty with specific concepts in the course. When these times arrive remember to ask for help. Come to your T.A., come to me, ask your classmates for help, visit the math study center and/or visit the student counseling center. If you still stumped send me an email.

You are never more than a step away from getting help. These are just a few of your options. Please, please, please find help earlier rather than later. You are all smart enough to do well in this course; the question is whether or not you are determined enough.

Office Hours. Even if you do not have any questions, you are very welcome to attend my office hours just to chat about life, expand the material of the course, find out something about me, etc.

There will also be additional office hours before each exam. Time TBA.

Additional Resources.

- The Center for Learning and Undergraduate Enrichment (CLUE) holds drop-in tutoring sessions every weekday evening in Mary Gates Hall Commons. See http://depts.washington.edu/clue/ for more details.

- The University of Washington is committed to providing access, equal opportunity and reasonable accommodation in its services, programs, activities, education and employment for individuals with disabilities. To request disability accommodations contact the Disability Services Office at least ten days in advance at: 206-543-6450/V, 206-543-6452/TTY, 206-685-7264(FAX), or dso@u.washington.edu.

- The Student Counseling Center provides academic skills workshop on a variety of topics including stress management test anxiety and time management to help you succeed at the University of Washington. If any of these is an issue for you, check out the schedule of workshops at http://depts.washington.edu/scc/studyskills.html.

How to Use Webassign. In order to access and submit your homework for grading, you will use Webassign. You will need a ”Webassign access code” which you can purchase with or without the text at the University Bookstore or at http://www.webassign.net

Here is a description of how to get registered on Webassign and begin accessing the homework. Open a web browser (Firefox, Safari, Internet Explorer, etc.) Go to this web address: https://www.webassign.net/washington/login.html. Click on the ”LOG IN” button. You’ll be
asked to log in to your MyUW account. You should end up at a page with access to your Math 126 assignments. Under “My classes” drop down menu, select our class. You will then be able to access current assignments, grades etc. The “Guide” and “Help” links in the upper right corner may help you find your way around Webassign.

When you open up a homework assignment, you will see empty boxes for your answers. Sometimes the answers are numerical (e.g., 1.25 or 5/4), sometimes symbolic (e.g. 2x + x²). A palette of mathematical symbols is provided to allow you to enter symbolic notation. You have the option to submit an answer OR save your work for later. You can also print out the entire homework, work on it away from the computer, then return and enter answers later.

On most questions, you are allowed 5 tries to enter the correct answer. After that, the correct answer pops up and you are given 0 on that particular submission. (The number of submissions for a multiple choice question is generally 2. For a True/False or Yes/No questions, you get only one submission.)

You will find that many of the problems have “randomized” numbers in them. For example, on a particular problem your homework may involve working with the equation 2x² + 3y² = 7. However, when you look at your friend’s homework, the same problem might instead involve the equation 3x² + 5y² = 7. These slight randomized changes ensure that no single answer key can be posted online for everyone to use.

Also, see this link: http://www.math.washington.edu/ m125/howtousewebassign.html