MATH 414-01, Winter 2010  Instructor : Linda Patton
M T Th F 9:10 am–10:00 am  Office 25-323
Room 20-143  Phone : 756-1680


Office Hours: M 8:10 am–9:00 am, T 1:10 pm–2:00 pm , R 8:10 am-9:00 am,
F 11:10 am–12:00 pm.

Furlough Days: Monday April 19 is a furlough day, so class is cancelled. Other furlough
days TBA.

The best way to contact me is by email at lpatton@calpoly.edu.

PROBABLE TOPICS

Weeks 1-3: Metric Spaces (focusing on spaces of functions)  Parts of Ch 13
Weeks 4-5: Fourier Series and Weierstrass Approximation Theorem  Section 10.8 plus other topics
Weeks 6-10: Multivariable Analysis  Ch 11, 12, plus extra material.

GRADING POLICY

Homework  15 %
Other  Up to 15 %
Each of two midterm exams  20 %
Final  30 %

No challenge problems this quarter.

EXAM SCHEDULE

Midterm 1 (50 minutes)  Week 4 or 5, TBA
Midterm 2 (50 minutes)  Week 8 ?, TBA
Final (2 hours and 50 minutes, comprehensive)  Wednesday, June 9, 7:10 am -10:00 am

Programmable calculators that have memory are not permitted. Exams will be written so that no
calculator is needed.

HOMEWORK

Homework will be collected most Fridays. Most of the homework problems will be proofs, and many
students find writing proofs very difficult. You should start the homework several days before it is
due. Some of the problems may require thinking for a long time before you can write up a final
solution. This is normal, and although it can be frustrating when you are trying to complete an
assignment in a fixed time period, I believe that this process of solving problems is the most useful
part of a mathematics course. Sometimes if you work on a problem and come back to it later, you
will notice new strategies, so it is important to leave yourself plenty of time. Someone will grade 3
problems each week. Nine points of your homework grade will be based on these 3 problems and
six points will be on completeness.

Please come to office hours if you have questions about the homework. I will discuss some of the
problems in class, but there will not be enough class time to go over all of the homework problems.
OTHER

I wanted to leave some part of the grade for other items. I may schedule quizzes, work in class, or presentations. I will let you know about them in advance. If I end up not doing much of this, it may not count 15 percent. In that case, the remaining percentage will be divided equally between Homework (1/3 remaining), Midterms (together 1/3 remaining), and the Final (1/3 remaining).

Math 414 Schedule for Weeks 1 and 2

HW 1, Due Friday, April 2: # 13.1.1, 13.1.2, 13.1.3, 13.2.1, 13.2.6, 13.2.7, 13.2.10.

HW 2, Due Friday, April 9: # 13.3.3, 13.3.4, 13.3.5, 13.3.7, 13.3.8, 13.4.1, 13.4.2, 13.4.5, 13.4.7, 13.4.13.

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<th>Monday</th>
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HW 1 due |
| 1-11 §13.5 | 1-12: §13.7 | 1-14: §13.8 | 1-15: §13.8 
HW 2 due |