

MATH 550. CALCULUS ON MANIFOLDS

MON & WED, 5:30–6:50 PM. JR 215

Instructor. Alberto Candel

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Office Hours. Mondays and Wednesdays 3:30–5:00 pm, and by appointment.

Course Web page. Homeworks and other material for this course will be posted on this Web page:

<http://www.csun.edu/~ac53971/courses/math550.html>

Prerequisites. Math 450.

Textbook. *Algebraic Topology* by W. Fulton. This textbook is recommended, but not required, for the course.

Topics include: Differential forms, Path Integrals and Winding Numbers, Cohomology and Homology, Vector Fields, Covering Spaces and Fundamental Groups.

Exams. There will be two Midterms and a Final Exam. The exams are scheduled as follows

- First Midterm on Monday, October 6.
- Second Midterm on Monday, November 17.
- Final Exam on Monday, December 8, 5:30–7:30 pm.

Homework. Homework will be assigned in class and due date set at the time. Late homework will be accepted; however, it will be penalized at a rate of 20% per day late. There will also be a penalty for not turning in homework.

I will grade some (or all) of the homework problems in full detail and the rest (if any) I will simply check mark. In any case, you are responsible for reading the answer keys and completing your own solutions.

Homework is an essential part of this course. You are encouraged to work with others, but you must write your own solutions in your own words.

Grading. The grades for the course will be calculated as follows

- 10% Homework
- 30% Midterms
- 30% Final

I will use +/- when computing your final grade.

Note. The last day to drop this class, no questions asked, is Friday, October 17.