

Math 550 Course Outline

Fall 2019
MWF 10:50–11:40

Text: *Vector calculus.*
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Web pages : <http://people.math.sc.edu/schep/math550-2019.html>

Homework assignments : <http://people.math.sc.edu/schep/homework550-2019.html>

Office hours: T-TH 1:30 PM – 3:00 PM

Prerequisite: MATH 241

Tests: 3 one hour tests, each counting 20%, 1 Final exam counting 30%

Weekly Quizzes based on homework: 10%

Tentative test dates: September 25, October 30, December 2.

Date of Final Exam: Wednesday, December 11, 9:00 AM

Material to be covered: Chapter: 1 thru 7. Plus some of chapter 8, time permitting

Math 241 is the prerequisite for this course. After a fairly quick review of the vector material from MATH 241 (extracted from chapters 1, 2), we will focus on the main material of the course, namely the Big Three Theorems of Green, Stokes, and Gauss, their relations, and how to use them.

Make-up policy: No make-ups for missed homework or quizzes (lowest 2 or 3 scores will be dropped), make-ups for missed hourly tests or final will only be given if they were missed for legitimate reasons. In this case any effort should be made to contact me as soon as possible and you might need to provide documentation to support your reasons for missing the tests.

Attendance policy: A grade penalty can be invoked, if more than 10% of classes are missed.

Learning Objectives: Student will demonstrate an understanding of the calculus of vector functions by solving problems in the context of vector fields (e.g., by distinguishing gradient fields from non-gradient fields), line integrals, surface integrals, divergence and curl. They will be able to exploit algebraic and geometric methods to compute integrals using the theorems of Green, Stokes and Gauss, as well as direct computation using parameterizations

Cell phone policy: Please turn your phone off or on silent mode, while in class.

Disability Statement Any student with a documented disability should contact the Student Disability Resource Center at 777-6142 to make arrangements for appropriate accommodations.