

SYLLABUS:

MATH 226 (CALCULUS III), SPRING 2018

Disclaimer: This syllabus does not constitute a contract. The instructor reserves the right to make changes at his discretion throughout the semester.

General information:

- **Instructor:** Dr. Guillaume Dreyer
Office: KAP 406K
Email: dreyfactor@gmail.com
Lectures: 11:00–11:50 am MWF in TTH 116
Office hours: Monday, 3:00–5:00 pm; Wednesday, 3:00–4:00 pm. Location: KAP 263 (Math Center)
- **Teaching Assistant:** Alexander Port
Office: KAP 338C
Email: portam@usc.edu
Discussions: 12:00–12:50 pm and 1:00–1:50 pm TTh in GFS 220
Office hours: TBA
- **Textbook:** James Stewart, *Essential Calculus, Second Edition*, ISBN: 9781133112297
- **Prerequisites:** Math 126

Course content: space curve, surface, curvature, function of several variables, partial derivatives, multiple integral, line integral, surface integral, Stokes' Theorem and its applications.

Learning objectives: By the end of the semester, you will be familiar with the fundamentals of multivariable calculus: vector formalism, vector function, partial derivative, gradient vector of a function, geometry of curves and surfaces. You will be able to apply these skills to a variety of applications – electromagnetism, classical and fluid mechanics, thermodynamics –. In particular, you will learn how to apply Green's Theorem, Divergence Theorem and Stokes' Theorem. (These 3 theorems are actually the very same theorem stated in different contexts.)

We will cover Chapters 10–13 of Stewart. Caution: while covering the material included in those chapters, we will not be following the textbook line-by-line.

Blackboard: Weekly homework assignments as well as grades will be posted on Blackboard <http://blackboard.usc.edu>. It is everyone's responsibility to visit the website on a regular basis.

Grading breakdown: Homework 11%, Quiz 14%, 2 Midterms 20% each, Final 35%.

Quizzes: There will be a weekly 15–20 min quiz every Tuesday during your discussion section. There will be no quiz on midterm weeks. **No make-ups under any circumstances.** You are allowed to drop one quiz score. (Keep that one-time deal for that day you find yourself sick.)

Homework: Weekly homework will be posted on BB every Monday. Assignments are due a week later and **must be submitted in class at the beginning of your Tuesday's discussion section**. Late and electronically submitted homework will not be accepted, no exceptions.

While assigned exercises must be treated, only 4 picked at random questions will be graded. (Completion will be part of the grading rubric.) You are allowed to drop one HW score. (Keep that one-time deal for that day you find yourself sick.)

You are strongly encouraged to discuss homework problems with your peers and to work in groups. This is the most efficient and rewarding way to learn and work. However, you must write your own solutions. **Homework which is simply copied from another source (friend, another textbook, internet, etc.) will be considered as plagiarism which is a serious offense to USC Student Code of Conduct.**

Exams: There will be two midterms and a final.

- **Midterm 1:** Friday, February 16th, in class.
- **Midterm 2:** Wednesday, March 28th, in class.
- **Final:** Wednesday, May 9th, 8:00–10:00 am. **You must take the final exam at the scheduled time.**

If there is a scheduling conflict for an exam, **you must let ME know (NOT the TA) at least 2 weeks before the examination**. A scheduling conflict must involve an activity sponsored and approved by USC (marching band, athlete event, etc.). In particular, the university club or organization in question must send an official request, with the Dean's approval, to all faculty. Personal activities do not qualify. **FAILURE TO ATTEND AN EXAMINATION WILL NOT BE EXCUSED UNDER NO CIRCUMSTANCES.**

No cheat sheet, no formula sheet, no calculator, no cell/smart phone or other electronic device will be allowed during examinations.

I am your point of reference. Above all, what is covered during lectures – topics, methodology, examples, exercises and ways to solve them – are your points of reference. Failure to attend lectures is extremely likely to significantly impact your performance in this course.

Resources: The Math Center is located in **KAP 263** and is open weekdays from **8 am to 7 pm (it closes earlier at 5 pm on Fridays)**. For up-to-date information on the consulting hours, visit the Math Center homepage <http://dornsife.usc.edu/mathcenter>. The purpose of the Math Center is to provide an environment where students can stop by to get help on their math classes. Math TAs at USC hold their office hours there. It is probably better to attend office hours of TAs who are teaching Math 126 this term. However, you are welcome to stop by the Math Center at any time and seek for help from any of the Instructors or TAs who are present at that time.

Students with disabilities: Any student requesting academic accommodations based on a disability is required to register with Disability Services and Programs (DSP) each semester and a letter of verification detailing approved accommodations must be delivered to your Instructor as early in the semester as possible. DSP is located in STU 301 and is open 8:30–5:00 pm, Monday through Friday. The phone number for the DSP office is (213) 740-0776.