

Information Sheet for Math 390

Course: Math 390, Vector Analysis, Spring 2026

Time: Tue 12pm-2pm

Instructor: Professor Cleary

Office: Marshak 301C **Phone:** 650-5122

Tentative Office Hours: Tue 8:30am, 2pm and by appointment. Check my webpage for the latest information about office hours.

Text: Calculus Early Transcendentals (9th ed.), Stewart, Clegg, Watson.

Sections Covered: Primarily material in chapter 16.

Topics Covered: Vector fields, line integrals, parametric surfaces, surface integrals, Stokes' Theorem, Divergence Theorem.

Prerequisite: a thorough knowledge of the topics of calculus from Math 213

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Main Website: <https://profcleary.github.io/math390/>

The grading of your work during the semester will be as follows:

- **Homework: (10%)**
- **Participation/Quizzes: (10%)**
- **In-person written midterm exam: (40%)**
Anticipated in-person exam date: Tues, Mar 31st
- **In-person Final Exam: (40%)** Tuesday, May 26th, 10:30am–12:45pm

General Expectations: For each class hour spent in classroom lecture, I expect at least two hours spent outside of class reading and understanding notes from lecture, reading the book, and working on the homework. Math 390 is a difficult class not only because the topics are challenging, but also because there are many different topics. Furthermore, some of the topics are considerably more abstract than the topics in earlier courses and it will take more work and energy to understand them competently. I expect all students to attend all classes and attempt all the homework assignments.

Exam Policy: There are **no** make-up exams. If you are going to miss an exam, it is your obligation to let me know as soon as reasonably possible beforehand. On the exams, it will be your obligation to demonstrate that you know how to solve the problems. The exams will consist of some problems similar to those from lecture, old departmental exams, problems from the text, homework problems, and also some more difficult ones that will require some creativity to solve completely and efficiently.

Homework Policy: Homework will be assigned each week and will be posted on the website for this class. Homework will be due before the beginning of class. I expect students to arrive on time and submit their homework before the beginning of class. Late homework will not be accepted. Because of this policy, the lowest two homework scores will not count.

Participation: This component of the grade will be based upon meaningful, productive participation in class. This can be during lecture or in the Brightspace discussion forums for the class.

General Advice: This class will require a great deal of time because we will cover many topics over the course of the semester. Lectures, homework, and quizzes will be an essential part of this class. If you do not have adequate time to devote to this class, please consider postponing this class until a semester in which you will. Remember the words of Dostoyevsky: “Originality and a feeling of one’s own dignity are achieved only through work and struggle.”

Academic Honesty: All work submitted for this course should be your own unless explicitly stated or acknowledged by you. If you collaborate with other students on the homework or use reference materials other than the texts, you must acknowledge the help. If you work with other students on the homework you must mention their names and how they helped. If the homework section does not have a place to mention sources used, you must send email explaining your use of outside materials before the deadline of the assigned work. If you consult online materials, you must describe those materials and how they were used. If you find that you are not able to do the homework without consulting other students, you will have great difficulty on the exams, quizzes, and with the participation components of the course. You are permitted to work with other students in the class, but this permission only applies to cooperative work, not to work mainly done by one student and mostly copied by others. All violations will be pursued through the Academic Integrity violation process and appropriate campus mechanisms and allowing one’s work to be copied is as serious a violation. Recommended sanctions for any academic integrity violations include failure for the course, and suspension or dismissal from the College.

Electronic and other assistance: Generative AI systems (ChatGPT, Claude, Gemini, Copilot, etc.), online and computational tools such as Mathematica, Wolfram Alpha, and MATLAB, online problems solution banks, online answer forums, and tutors may not be used for any submitted work unless explicitly announced in advance as permissible. In that case, such use much be acknowledged and documented. Assignments, exams and quizzes in the course are designed to be done by pencil and paper without supplemental materials.

Preparation: This course continues where CCNY’s Math 213 Calculus III ended. Topics from Math 213 are presumed to be already mastered including parameterizing curves, line integrals with respect to arclength, properties of vector fields, work and flux integrals, and multiple integrals.