

Math 23B – Vector Calculus
Tues/Thurs, 1:00-4:30pm, Earth & Marine Sciences B214

Prof Name : Robert Hingtgen

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Office Location : McHenry 1266

Office Hours: MWF 3:30-5:00pm and by appointment

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Section : Mon/Wed, 2-3:45pm, Physical Sciences 130.

This syllabus may be subject to change in the future.

Course Description: Double integrals, changing the order of integration. Triple integrals, maps of the plane, change of variables theorem, improper double integrals. Path integrals, line integrals, parametrized surfaces, area of a surface, surface integrals. Green's theorem, Stokes' theorem, conservative fields, Gauss' theorem. Applications to physics and differential equations, differential forms.

Prerequisite(s): 23A.

Credit Hours: 5

Text(s): *Vector Calculus*, 6th Edition

Author(s): Marsden & Tromba; **ISBN-13:** 978-1-4292-1508-4

Grade Distribution:

Homework	30%
Midterm Exam	30%
Final Exam	40%

Course Policies:

• **Homework**

- Students are expected to work independently. Discussion amongst students is encouraged, but when in doubt, direct your questions to the professor or TA.
- Homework assigned on Tuesdays will be due Fridays. Homework assigned on Thursdays will be due Tuesdays in class.
- **Late assignments will be accepted only under extenuating circumstances.**

• **Attendance and Absences**

- Attendance is expected. Posted lecture notes will include examples gone over in class, but not worked out in detail in most cases. Thus lecture attendance is heavily suggested to get those details.
- Students are responsible for all missed work, regardless of the reason for absence. It is also the absentee's responsibility to get all missing notes or materials.

Academic Honesty Policy Summary:

The full text of the Academic Honesty Policy is in the *Student Handbook & University Policies Section 100*.

Tentative Course Outline:

The weekly coverage might change as it depends on the progress of the class.

Day	Content
7/26	• 5.1 – 5.3
7/28	• 5.4, 5.5, 6.1
8/2	• 6.2, 6.3
8/4	• 6.4,7.1,7.2
8/9	• Midterm , 7.3
8/11	• 7.4, 7.5
8/16	• 7.6, 8.1
8/18	• 8.2,8.3
8/23	• 8.4, Final Review
8/25	• Final Exam