

Syllabus for Math 291, Honors Vector Calculus, Fall 2013

All reading assignments are to chapters in the online text, *Multivariable Calculus, Linear algebra and Differential Equations* by Eric Carlen.

WEEK 1: Sep 4,5: Introduction to the course.

Reading: Sections 1.1-1.3 of Chapter 1.

WEEK 2: Sep 9,11,12:

Reading: Sections 1.4 -2.4 in Chapter 1.

WEEK 3: Sep 16,18,19:

Reading: Sections 3.1-3.2 in Chapter 1 and Sections 1.1-1.4 in Chapter 2.

First homework assignment: due Mon, Sep.16

WEEK 4: Sep 23,25,26:

Reading: Sections 1.5- 2.3 in Chapter 2.

First Challenge Problem workshop: Mon., Sep.23

Second homework assignment: due Wed., Sep. 25.

WEEK 5: Sep 30, Oct 2,3:

Reading: Chapter 3.

Second Challenge Problem workshop: Wed., Oct 2

Third homework assignment: due Thr., Oct 3.

WEEK 6: Oct 7,9,10:

Reading: Sections 1.1-4.3 of Chapter 4

Fourth homework assignment due: Thr., Oct 10

WEEK 7: Oct 14,16,17:

Reading: Sections 1.1-1.4 of Chapter 5.

• **First Midterm Exam** Thr., Oct 17. This will be based on the material from weeks 1 through 6.

WEEK 8: Oct 21,23,24:

Reading: Section 2 of Chapter 5,

Fifth homework assignment due: Thr., Oct 24

Third Challenge Problem workshop: Mon, Oct 21

WEEK 9: 28,30,31:

Reading: Sections 3-5 of Chapter 5

WEEK 10: Nov 4,6,7:

Reading: Sections 6.1-6.7 of Chapter 6
Sixth homework assignment due: Thr., Nov 7
Fourth Challenge Problem workshop: Mon., Nov. 4

WEEK 11: Nov. 11,13,14:
Reading: Sections 1.1-2.2 of Chapter 7
Seventh homework assignment due: Wed Nov 14

WEEK 12: Nov 18,20,21:
Fifth Challenge Problem workshop: Mon, Nov. 18
Reading: Sections 3.1.-4.3 of Chapter 7

WEEK 13: Nov 25,26:
Reading: Sections 1 and 2 and 3.2 in Chapter 8 on determinants, and a review of multi-variable integration.
Eighth homework assignment due: Tue., Nov 26

WEEK 14: Dec 2,4,5:
Reading: Sections 1-3 Chapter 9
Sixth Challenge Problem workshop: Wed., Dec 4
• **Second Midterm Exam:** Thr., Dec. 5

WEEK 15: Dec 9,11:
Reading: Section 4 of Chapter 9
Ninth homework assignment due: Wed., Dec 11

FINAL EXAM: Dec 17, 8:00-11:00 a.m.