Final Exam: The final exam will be Monday, May 5 from 1:30-4:30 in our usual classroom. It will be a comprehensive exam, though material covered since the third midterm will receive special prominence. As always, the general verticality of mathematics tends to lead to an emphasis on later material, at least at the surface level (e.g. you can't do a surface integral without reducing it to a double integral, or differentiate a 2-form without knowing what a partial derivate is). To allow for the wider range of material, you will be allowed to bring up to *three* sheets of notes to the exam.

Review class: Class on Wednesday, April 30 will be devoted to review. Please email me suggestions for topics, which can be from any part of the course.

Office hours: My office hours in Altgeld 378 will be

- Monday, April 28: 3:00–5:00 as usual.
- Thursday, May 1: 9:30–11:45.
- Friday, May 2: 10:00–12:00 and 12:30–2:00.
- Saturday, May 3: 11:00–1:30.
- Sunday, May 4: 11:00–1:30.
- Monday, May 5: 9:00–12:00.

Additional times are available by appointment for those who cannot make the above times.

Review problems: Here are some recommended review problems:

- Chapter 1.
  - Review discussion questions: All except 1, 2.
  - True/false: All.
  - Review exercises: All except 1–4.

- Chapter 2.
  - Review discussion questions: 2, 3, 7–10, 12–14.
  - True/false: All.

- Chapter 3.
  - Review discussion questions: 1, 4, 5, 6.
  - True/false: 5, 7, 8.
  - Review exercises: 1–4, 10–12.
• Chapter 4.
  – Review discussion questions: All but 9, 10, and 13.
  – Review exercises: 2, 6, 7, 10–15.

• Chapter 5.
  – True/false: All.
  – Review exercises: All except 2 and 11.

• Chapter 6.
  – Review discussion questions: All.
  – True/false: All.
  – Review exercises: All.

• Chapter 7.
  – Review discussion questions: All except 4, 6, 8.
  – True/false: All.
  – Review exercises: All except 1, 6, 12, 13, 15.

• Chapter 8.
  – True/false: All except 11.