# Exam 3

Review Sheet (updated 12/5/18)

December 5, 2018

The exam is scheduled for Tuesday, December 11, 2–5pm in Warner 207. The exam will cover Chapter 5, Section 6.1 and Section 6.2 (Green's Theorem). Sections labelled optional that we did not cover will not be included. Below lists topics/questions you are likely to see; the list is NOT exhaustive.

- Know the difference between an iterated integral and a double/triple integral, and how to compute each.
- Know the statement of, and be able to use, Fubini's Theorem for both double and triple integrals.
- Be able to use Theorem 2.10, know when you can interchange order of integration.
- Be able to make a change of variables to compute a double or triple integral. I will give you the change of variable formulas for triple integrals (the shaded box on page 371), but not for double integrals (the shaded box on page 370).
- Be able to compute a scalar line integral, a vector line integral.
- Know the statement of Green's theorem.

Definitions to know:

- Elementary region
- extension of $f$
- Jacobian of a transformation
- Scalar line integral
- Vector line integral
- reparametrization
- curve, oriented curve, simple curve, closed curve