The exam will cover all material taught. Everything we talked about from Chapters 1-7 is fair game.

This document lists definitions and statments of theorems you should know. Not everything listed here will be asked on the final, and absence from this list is not a guarantee that it will not appear.

You should know all the things from the midterm 2 study guide.

Additional material since then:

Definitions:

- Definition of the derivative.

- The full on definition of the Riemann integral.

- A Riemann integrable function.

- Be able to define all the pieces that go into the above.

- Pointwise convergence.

- Uniform convergence.

Theorems:

- Interior Extremum Theorem

- Rolle's Theorem (typically known as Rolle's Lemma)

- Mean Value Theorem

- Cauchy Criterion for Uniform Convergence

- Fundamental Theorem of Calculus, both parts

Then, there is the material from the first midterm, including a lot of foundations for the class. Anything asked on the first midterm is fair game. The following come to mind.

Definitions:

- An upper/lower bound for a set.

- A bounded set.

- A supremum/infimum of a set.

- Convergence of sequences and series.

- Finite, infinite, countably infinite, uncountable sets.

- Axiom of completeness.

- A Cauchy sequence.

- Absolute convergence of a series.

Theorems:

- Monotone Convergence Theorem

- Nested Interval Theorem

- Cauchy Criterion

- Bozano Weierstrass Theorem

- Squeeze Theorem

- Cauchy Criterion for Series

- Comparison Test for Series

- Alternating Series Test

- Ratio test

- Absolute Convergence Test