Catalog Description: Limits and continuity of functions, sequences, series tests, absolute convergence, uniform convergence. Power series, improper integrals, uniform continuity, fundamental theorems on continuous functions, theory of Riemann integrals.

Suggested Math 327

- The Real Number System
  - ordered field axioms and completeness
  - elementary properties of real numbers
  - the Archimedean property
  - inf and sup
  - absolute values and the triangle inequality

- Sequences of real numbers
  - convergence, infinite limits
  - algebraic limit theorems, squeeze principle
  - monotone convergence theorem
  - subsequences
  - Bolzano-Weierstrass theorem
  - Cauchy sequences
  - lim inf, lim sup

- Series of real numbers
  - tests for convergence
  - absolute and conditional convergence

- Functions
  - limits
  - continuity

- Uniform Convergence
  - definition of uniform convergence of sequences of functions, examples
  - consequences of uniform convergence