

Mathematics 4547 Introductory Analysis I Autumn, Spring 3 credits

Catalog Description:

4547-4548 involves advanced calculus covering: sequences, limits, continuity, differentiation, Riemann integral, sequences and series of functions, Taylor series, and improper integrals.

Prerequisite:

C- or better in 3345; or credit for 345.

Text:

<u>Introduction to Real Analysis</u>, 4rd edition, by Bartle & Sherbert, published by Wiley, ISBN: 9780471433316

Topics List:

- 1. Sequences and their limits.
- 2. Bolzano-Weierstrass Theorem and Cauchy's criterion.
- 3. Convergence and absolute convergence of series. Tests for convergence.
- 4. Power series.
- 5. Continuous functions.