

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.

Texts: Instructors will choose one of the following recommended texts:

Elementary Analysis, 2nd edition, by Kenneth A. Ross, published by Springer, ISBN: 978-1-4614-6271-2 (eBook), Available free through OSU libraries. Chapters 1-3.

Introduction to Real Analysis, 4th edition, by Bartle & Sherbert, published by Wiley, ISBN: 9780471433316. Chapters 1.1-5.4.

Topics List:

1. Sequences and their limits.
2. Bolzano-Weierstrass Theorem and Cauchy's criterion. Lim sup's and lim inf's.
3. Convergence and absolute convergence of series. Tests for convergence.
4. Continuity and limits of functions. Uniform continuity.