Overview

Advanced Calculus examines rigorous reconsideration and proofs involving calculus. Topics include real-number systems, sequences, limits, continuity, differentiation, and integration. This course emphasizes students’ ability to apply critical thinking to concepts to analyze the connections between definitions and properties. Calculus III and Linear Algebra are prerequisites.

Competencies

▲ Mathematical Proofs
The graduate writes mathematical proofs with proper mathematical notation and terminology to demonstrate their understanding of accepted mathematical conventions.

▲ Real Number System
The graduate analyzes the real number system using precise definitions and theorems to develop an advanced perspective.

▲ Limits
The graduate analyzes limits of sequences using precise definitions and theorems to develop an advanced perspective.

▲ Functions
The graduate analyzes functions of one real variable using precise definitions and theorems to develop an advanced perspective.

Learning

Getting Started
Welcome to Advanced Calculus! This course is organized into several manageable modules, consisting of essential readings, videos, exercises, projects, and reflection questions, which will help you prepare for the performance assessment. To increase your ability to demonstrate competency, you are encouraged to complete the exercises and projects in each section. You will demonstrate your competency through successful completion of five performance tasks.

GO TO COURSE MATERIAL
Status: Not Attempted
Code: IGP1

Course Information

Pacing Guide

Course Instructor

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Announcements

Course Tips

Course Search

Course Chatter