

MATH120R : Functions & Modeling II

Functions & Modeling II builds from Functions & Modeling I. The course will focus on strengthening proficiency with functions and modeling at both the procedural and conceptual levels to serve as a preparation for calculus. The course begins with a review of linear, quadratic, exponential, logarithmic, and trigonometric functions. Students will study inverse functions, compositions, combinations of functions, polynomial and rational functions, sequences and series, parametric equations, conic sections, and an introduction to limits and continuity. Additional topics may include complex numbers, polar coordinates, and vectors. Students can expect to complete projects that involve the use of functions to model real-world behavior and include data analysis and fitting functions to data. The course will be student centered and focus on developing quantitative literacy through activity-based instruction that integrates technology (e.g., dynamic statistical packages, computer algebraic systems, on-line virtual manipulatives) and emphasizes the conceptual understanding of the mathematical concepts studied. Multiple assessments tools will be used to measure the course competencies and may include on-going formative assessments, portfolios, quizzes, exams, and projects/investigations.

Credits 4

Lecture Hours 4

Prerequisites

MATH 110R or Permission of Instructor