

MATH110R : Functions & Modeling I

This course will focus on the use of functions and algebra in problem solving and modeling. Topics include the study of linear, quadratic, exponential, logarithmic, and trigonometric functions, along with translation of functions, inverse functions, and trigonometric identities. Students can expect to complete projects that involve the use of functions to model real-world behavior (e.g., the dynamics of caffeine in the body) and include topics such as data analysis, systems of linear equations, optimization, and rational functions. The course will be student centered and focus on developing quantitative literacy through activity-based instruction that integrates technology (e.g., dynamic statistical packages, calculator-based labs, spreadsheets, 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

Lab Hours 3

Lecture Hours 3