

MATHEMATICS

Choose one of the following courses:

MAT107 Mathematics and the Modern World

3 credits

This course introduces selected topics in mathematics which have significant application in other fields. For each topic studied, emphasis will be placed first on the mathematics itself, and then on one or more significant applications of the mathematics. Topics to be included will be chosen from the areas of number theory, algebra, probability and statistics, topology, computers, and geometry.

MAT120 Elementary Statistics I

3 credits

This course serves as a study of fundamental concepts and computational techniques of elementary statistics. Among the topics studied are: measures of central tendency, standard deviation, percentiles, statistical graphs, binomial and normal distributions, probability, confidence intervals, hypothesis testing, regression and correlation. A statistical software package will be used by students to obtain basic sample statistics, to simulate fundamental theorems and to assist with hypothesis testing. A graphing calculator will be used by students to assist with computations, as well as with tabular and graphical displays of data. This is a course designed to provide students with an appreciation of the usefulness and power of calculus. Emphasis will be placed on the application of calculus to various disciplines. Among the topics studied are the definite integral, area, formal integration, and applications of integration.