

**COLUMBUS STATE COMMUNITY COLLEGE
MATHEMATICS DEPARTMENT COURSE SYLLABUS**

COURSE NUMBER: Math 278

COURSE NAME: Probability and Statistics II

CREDIT HOURS: 5

FOLLOW UP COURSE: none

PREREQUISITE: Math 277 with a grade of "C" or higher or placement by COMPASS

COURSE DESCRIPTION

Continuation of MATH 277; Statistical estimation and sampling distributions, One and two sample estimation; one and two sample hypothesis tests; simple linear regression and correlation; discrete data analysis; and analysis of variance; and selected topics from non-parametric statistics, multiple linear regression, or statistical quality control. Applications are to problems in science, engineering, computer science, and related areas. MATH 277 – 278 is intended primarily for students majoring in the sciences, engineering, mathematics, or computer science, or for other students needing a calculus-based sequence in probability and statistics.

GOALS OF COURSE

To master the major concepts and methods of analysis in probability and statistics, to apply those concepts and methods to the solution problems arising in science, engineering, computer science, and related areas, and to develop problem-solving skills and skill in the statistical interpretation of solutions.

TEXTBOOK AND SPECIAL EQUIPMENT REQUIRED

Probability & Statistics for Engineering and the Sciences, 8th ed., Jay Devore, 2008.

SECTIONS OF TEXTBOOK TO BE COVERED