STATISTICS 2550
STATISTICS FOR SCIENCE STUDENTS

The purpose of Statistics 2550 is to provide a background in probability and statistical methods to students in the physical and life sciences.

Students will find statistics is an important part of almost all research work done in areas of biology and life sciences; for example, how lifetime of human beings is estimated, how the effectiveness of different drugs in lowing serum cholesterol in human objects is tested, and how the result of implementing a new treatment to a cancer patient is evaluated.

The goal of this course is to train students to use basic statistical concepts and tools and to prepare students to use them in their discipline studies and in their professional career in the future.

Text. *Statistics* by J. McClave and T. Sinich.

Marks.	Lab Quizzes	20%
	Midterm Exam	30%
	Final Exam	50%

Calendar description. **2550 Statistics for Science Students** is an introduction to basic statistics methods with an emphasis on applications to the sciences. Material includes descriptive statistics, elementary probability, binomial distribution, Poisson distribution, normal distribution, sampling distribution, estimation and hypothesis testing (both one and two sample cases), chi-square test, one way analysis of variance, correlation and simple linear regression.
Prerequisite: Mathematics 1000 or 1081.
Note: Credit can be obtained for only one of Engineering 4421, Statistics 2500, 2510, 2550, Psychology 2910, 2925, and the former 2900. Statistical computer package will be used in the laboratory, but no prior computing experience is assumed.

Offered. Fall, Winter and Spring