

# Course Outline

Course Title: Introduction to Probability and Statistics

Course Code: STAT 270

Credits: 3

Section: C100

Course Description:

This is one of the first courses in probability and mathematical statistics. Basic laws of probability, sample distributions, introduction to statistical applications.

The course consists of the following general topics:

1. Introduction to descriptive statistics
2. Concepts of probability and tools for calculating probability
3. Discrete distributions: Variables, expectations and Binomial and Poisson's distributions
4. Continuous distributions: Normal, gamma, exponential distributions, normal approximation to Binomial distribution, jointly distributed random variables, the central limit theorem
5. Inference: Single samples-estimation, hypothesis testing
6. Inference: Two samples-normal, large samples, and paired cases

Requisite:

Corequisite(s): MATH 152 or 155 or 158.

Students wishing an intuitive appreciation of a broad range of statistical strategies may wish to take STAT 100 first.

Quantitative.

Textbook:

- Devore, Jay L. PROBABILITY AND STATISTICS FOR ENGINEERING AND THE SCIENCES (7TH) Nelson (Brooks / Cole)

Course Material:

- Study Guide

Students must indicate Pickup or Mail when enrolling in the Student Information System (SIS), in order to receive the required course material listed above

Course Requirements:

Assignment/Exam	Percentage
Assignment 1	5%
Assignment 2	5%
Assignment 3	5%
Assignment 4	5%
<u>Mid-term Exam</u>	25%
<u>Final Exam</u>	55%

Requirements Notes:

To pass the course, you must pass the final exam.

