

Virginia Western Community College

MTH 245

Statistics I

Prerequisites

Successful completion of MTH 154, MTH 161, or MTH 167 with a C or better.

Course Description

Presents an overview of statistics, including descriptive statistics, elementary probability, probability distributions, estimation, hypothesis testing, correlation, and linear regression.

Semester Credits: 3

Lecture Hours: 3

Required Materials

Textbook:

Discovering Business Statistics. Nottingham. 1st edition. Hawkes. ISBN: 9781941552582.

Other Required Materials:

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Course Outcomes

At the completion of this course, the student should be able to:

- Prepare reports using descriptive statistics both graphical and numeric presentations.
- Carry out basic probability calculations.
- Use the binomial and normal distributions to solve appropriate applied problems.
- Make appropriate statistical inferences using one and two sample methods.
- Use ANOVA for statistical inferences involving more than two populations.
- Use a computer to obtain appropriate statistics for use in applied problems.

Topical Description

Topics

Descriptive Statistics

Tables and Charts

Measures of Central Tendency

Measures of Variability

Probability

Basic Concepts and Rules

Chapter

2, 3, & 4

6, 7, & 8

Discrete Distributions	
Binomial	
Hypergeometric	
Poisson	
Normal Distribution	
Sampling Distributions	9
Central Limit Theorem	
Random Sampling	
Statistical Inference – Estimation and Testing	10-14
One Sample Methods	
Two Sample Methods	
Analysis of Variance	15.1

Computer usage is stressed throughout the course. Students will use Minitab for exercises throughout the course. Students will also use a calculator that expediently find the mean and standard dev.

Notes to Instructors

None.