Math 167 Syllabus for Fall 2009
Three Rivers Community College

Course: Principles of Statistics MAT* K167 T04 **CRN:** 31245

Prerequisites: Mat K137 OR Acceptable Placement Score

Instructor: John Wengertsman
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Office Hours: Monday 9:25 to 10:25am, Tuesday and Thursday 12:30 to 1:30pm

Text: Elementary Statistics with Multimedia Study Guide 10th Edition
by Mario F. Triola

Meeting Times: Monday and Wednesday from 3:30 - 4:45pm
Room #: TRCC D211

Course Description: This course introduces the basic concepts of statistics as they apply primarily to business, the technologies, and the social sciences. The topics include methods of summarizing data, measures of central tendency and dispersion, correlation and linear regression, basic probability, binomial and normal distributions, hypothesis testing for one and two populations, confidence intervals, and distributions.

Course Objective: The objective is for the student to understand and appreciate the strengths, limitations and usefulness of general statistical methods used in the collection, presentation, analysis and interpretation of data. This is accomplished through the development of formal analytical skills for recognizing and formulating statistical problems in decision making.

Attendance: For the learning process to be effective, you are expected to attend each class regularly, to arrive on time, and to take exams on their assigned dates. If you miss a class, you are still responsible for the material covered, homework assigned, and any announcements. If you will be missing a class for an appropriate reason, please call or email me as soon as possible.

Withdrawal Policy: Students may withdraw, in writing at the Registrar's Office, for any reason up through Wednesday, December 9. No withdrawals will be accepted after Wednesday, December 9.

Homework: I expect all homework assignments to be completed and kept in an organized notebook or folder. Homework is assigned at each class meeting.

Course Evaluation: There will be three tests (worth 23% each) and a cumulative final exam (worth 31%). You must come to class to take these tests. **In general, make-up of a missed test is not allowed.** Exceptions to this rule may be made for extraordinary circumstances (grade may be adjusted). Tests will be announced a week in advance.

A 94-100; A- 90-93; B+ 87-89; B 83-86; B- 80-82 C+ 77-79; C 73-76; C- 70-72; D+ 67-69; D 63-66; D- 60-62; F below 60

Support Services: TASC is the college's free tutoring and academic success center. Sign up a tutor or drop in as needed to the Thames Tutoring Center (860 885-2311) located in C-117. Peers and peer study groups are also good resources. Meeting with me is another option available.

Use of Calculators: This course requires the use of a TI83, TI83 Plus, or TI84 graphing calculator.

Academic Integrity Policy: Academic integrity is essential to a useful education. Failure to act with academic integrity severely limits a person's ability to succeed in the classroom and beyond. Furthermore, academic dishonesty erodes the legitimacy of every degree awarded by the College. In this class and in the course of your academic career, present only your own best work; clearly document the sources of the material you use from others; and act at all times with honor. Please see the Three Rivers Community College catalog for the college's Academic Integrity Policy.

Disabilities Statement: Students with disabilities, who require special accommodations and support services, are encouraged to notify Chris Scarborough (860 892-5751)

Cellular Phones and Beepers: Cellular phones and beepers must be turned off during class. Phones are not to be answered during class. Please see me if extenuating circumstances should arise.

Inclement Weather: To obtain information on delays, changes, or class cancellations due to inclement weather or emergencies call 860 886-0177 or check your email.

Math 167 Course Content

1.1 Overview
1.2 Types of Data
2.1 Overview
2.2 Frequency Distributions
2.3 Histograms

3.1 Overview
3.2 Measures of Center
3.3 Measures of Variation
3.4 Measures of Relative Standing
3.5 Exploratory Data Analysis
TEST 1

4.1 Overview
4.2 Fundamentals of Probability
4.3 Addition Rule
4.4 Multiplication Rule: Basics
4.5 Multiplication Rule: Complements and Conditional Probability
4.7 Counting

5.1 Overview
5.2 Random Variables
5.3 Binomial Probability Distribution
5.4 Mean, Variance, and Standard Deviation for the Binomial Distribution

6.1 Overview
6.2 The Standard Normal Distribution
6.3 Applications of Normal Distributions
6.4 Sampling Distributions and Estimators
6.5 The Central Limit Theorem
TEST 2

7.1 Overview
7.2 Estimating a Population Proportion
7.3 Estimating a Population Mean: σ Known
7.4 Estimating a Population Mean: σ Unknown

8.1 Overview
8.2 Basis of Hypothesis Testing
8.3 Testing a Claim About a Proportion
8.4 Testing a Claim About a Mean: σ Known
8.5 Testing a Claim About a Mean: σ Unknown
TEST 3

9.1 Overview
9.2 Inferences About Two Proportions
9.3 Inferences About Two Means: Independent Samples
9.4 Inferences from Matched Pairs

10.1 Overview
10.2 Correlation
10.3 Regression
FINAL EXAM – CUMULATIVE