Elementary Statistics

Course Information: Elementary Statistics MAT123 13145
Instructor: Sandra Gaboury   **Email:** sgaboury@trcc.commnet.edu
Office: D205   **Office Hours:** MW 1-2 or by appointment

Required Materials
Introductory Statistics 9th Edition by Weiss, *Graphing Calculator* (TI-84 Preferred)
Credit: 3 credit hours

Course Description
This course considers fundamental concepts of probability and statistics. The topics include exploratory data analysis (tables, graphs, measures of central tendency and dispersion), basic probability, applications of binomial and normal distributions, confidence intervals, hypothesis testing and Chi-Square Goodness-of-Fit Test.

Prerequisite: MAT K095 or MAT K095I with a "C#" grade or better or appropriate placement through multiple-measures assessment process.

Grading Policy
A student will receive one of the following grades: A, A-, B+, B, B-, C+, C, C-, D+, D, D-, F, I, W, P or Audit. Throughout the semester there will be *four exams* (an exam will be announced at least one week prior to its administration), *quizzes and projects throughout the semester, and a comprehensive final exam*. Your final grade will be computed based on

Tests:	50%
Quizzes and case studies:	30%
Final Exam:	20%

Grade Equivalents:			
A 93 - 100	B 83 - 86	C 73 - 76	D 63 - 66
A- 90 - 92	B- 80 - 82	C- 70 - 72	D- 60 - 62
B+ 87 - 89	C+ 77 - 79	D+ 67 - 69	F 59 or less

Quizzes cannot be made up. No test can be made up without prior arrangement with the instructor. All makeup tests will take place during final exam week.

College Withdrawal Policy
Course withdrawals are accepted up until the week before classes end. Specific dates are posted in the academic calendar and withdrawal forms are available online or at the Registrar's office. The withdrawal does not need to be signed by the instructor but it is strongly recommended that you speak with your instructor before withdrawing. If you are receiving financial aid you must contact their office for approval before withdrawing. If necessary, you can withdraw over the phone by calling the Registrar's Office at 860-892-5756.

Disabilities Statement
If you have a hidden or visible disability which may require classroom or test-taking modifications, please see me as soon as possible. If you have not already done so, please be sure to register with Chris Scarborough.

Academic Integrity Policy
All students are expected to demonstrate their knowledge of the material on each quiz and test. Any student caught cheating will receive a zero on that test.

Digication Statement
All students are required to maintain an online learning portfolio in Digication that uses the college template.

Class Cancellation Policy
If class is canceled by the instructor a notice will be placed on the classroom door. If time permits, the class will be notified by Three Rivers email.

Elementary Statistics
MAT 123
Course Outcomes

1. Construct and interpret graphs (histograms, bar graphs, stem and leaf plots) and tables (frequency and relative frequency) for sets of data.
2. Calculate and interpret 3 measures of center (mean, median and mode) and select the appropriate measure of center to use for the set of data presented.
3. Calculate and interpret 3 Measures of Dispersion (range, standard deviation and five-number summary) then select the appropriate Measure of Dispersion to use for the data presented.
4. Solve and interpret word problems using the z score to measure relative position(s).
5. Understand and use the definition of probability and the basic rules of addition, multiplication and counting to solve probability word problems.
6. Understand and use contingency tables to solve probability word problems.
7. Understand and apply the appropriate probability distribution (binomial, standard normal or normal) needed to solve probability word problems.
8. Explain what the Central Limit Theorem is and how it is used in Inferential Statistics.
9. Determine appropriate sample sizes necessary for estimating population means.
10. Understand and develop confidence intervals for estimating population means.
11. Understand and use Hypothesis Testing to test a claim about a population mean.

Schedule and/or Assignments may be subject to change based on the needs of the class:

Date	Chapters (Sections)	Assignments
1/26	Ch. 2.1, 2.2	Exercises at the end of each section should be completed as you read them. Be prepared for a brief discussion of the exercises at the beginning of the next class.
1/28	Ch. 2.3, 2.4	
2/2	Ch. 3.1, 3.2	Quiz Chapter 2—Case Study
2/4	Ch. 3.2, 3.3	
2/9	Ch. 3.4	Case Study
2/11	Review	
2/18	Test #1	
2/23	Ch. 4.1, 4.2	
2/25	Ch. 4.3, 4.4	
3/2	Ch. 4.6, 4.8	
3/4	Ch. 5.1, 5.2	Quiz Chapter 4—Case Study
3/9	Ch. 5.3	Case Study
3/11	Review	
3/23	Test #2	
3/25	Ch. 6.1, 6.2	
3/30	Ch. 6.3	
4/1	Ch. 6.5	
4/6	Ch. 7.1, 7.2	Quiz Chapter 6—Case Study
4/8	Ch. 7.3	Case Study
4/13	Review	
4/15	Test #3	
4/20	Ch. 8.1, 8.2	
4/22	Ch. 8.3, 8.4	
4/27	Ch. 9.1, 9.2	Quiz Chapter 8—Case Study
4/30	Ch. 9.3	
5/4	Ch. 9.4	
5/6	Ch. 9.5, 9.7	Case Study—Upload to Digication Portfolio
5/11	Review	
5/13	Test # 4	
5/18	Final Exam	