

Mat167 (Fall 2018, CRN# 32033, Sect. T3)

Principles of Statistics

Course Description: A practical introduction to collecting, presenting, and making inferences from data, including critically examining data sources and collection methods. The course focuses on populations whose data sets consist of one or two numerical variables. Some basic probability theory will also be studied.

Instructor: Professor Paul Centore

Email: pcentore@trcc.commnet.edu

Communication will occur verbally, by email, and by Blackboard. Please make sure that your email address in MyCommNet is accurate. Check Blackboard and email regularly to be informed of any schedule changes.

Lectures: Tuesday, Thursday 1100-1215 rm. D226

Office Hours: Tuesday, Thursday 1230-130 rm. D205W (also try just before class)

Mailbox: room D207

Calculator (required): TI 83/84 (regular or Plus versions), or equivalent that supports two-variable statistics

Recommended Textbook (print or electronic): Mario Triola, *Elementary Statistics, 13th Edition*, ISBN # 978-0-13-446245-5

Support: Tutoring and Academic Success Center (TASC), rm. C113.

Tests and Exam:

		Chapters of Textbook
1	Thursday, Sept. 20, 11:00	1, 2, 3
2	Thursday, Oct. 18, 11:00	4, 5, 6
3	Thursday, Nov. 15, 11:00	7, 8
4	Thursday, Dec. 6, 11:00	9, 10
Final	Thursday, Dec 13, 11:00	All chapters studied

Grading:

Hand-in assignments (best 10) 25% *Late assignments will not be accepted.*

Tests (best 3 of 4) 35%

Project 15%

Final exam 25%

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	< 60

TENTATIVE SYLLABUS

<u>Week of:</u>	<u>Chapter(s):</u>	<u>Topics Covered:</u>
Aug. 27	1.1 – 1.2	Statistics & Critical Thinking, Types of Data
Sep. 3	1.3, 2.1 – 2.2	Collecting Sample Data, Frequency Distributions, Histograms
Sep. 10	2.3 – 2.4	Graphs That Enlighten and Graphs that Deceive, Scatterplots,
Sep. 17	3.1 - 3.3	Measures of Center, Measures of Variation, Measures of Relative Standing and Boxplots Test #1 Thursday, Sep. 20 (Ch 1, 2, 3), 11:00 am
Sep. 24	4.1 - 4.3	Basic Concepts of Probability, Addition Rule and Multiplication Rule, Complements, Conditional Probability and Bayes' Theorem
Oct. 1	5.1 – 5.2	Probability Distributions, Binomial Probability Distribution
Oct. 8	6.1	The Standard Normal Distribution
Oct. 15	6.2 – 6.4	Real Applications of the Normal Distribution, Sampling Distributions, The Central Limit Theorem
Oct. 22	7.1	Estimating a Population Proportion Test #2 Thursday, Oct. 25 (Ch 4, 5, 6), 11:00 am
Oct. 29	7.2, 8.1	Estimating a Population Mean, Basics of Hypothesis Testing
Nov. 5	8.2 – 8.3	Testing a Claim about a Proportion, Testing a Claim about a Mean Project due---Thursday, Nov. 8
Nov. 12	9.2	Two Means: Independent Samples Test #3 Thursday, Nov. 15 (Ch 7, 8), 11:00 am
Nov. 26	9.3, 9.1	Two Dependent Samples (Matched Pairs), Two Proportions
Dec. 3	10.1 - 10.3	Correlation, Regression, Prediction Intervals and Variation Test #4 Thursday, Dec. 6 (Ch 9, 10), 11:00 am
Dec. 10		Review, Catch-up Final Exam Thursday Dec 13, 11:00 am

Practice Problems: For each section studied, work out the following problems on your own, and check the answers in the back of the book (not all problem numbers occur in each section):

1, 3, 5, 7, 9, 13, 17, 21, 25, 31, 37

Course Objectives and Outcomes: At the completion of MAT 167, the student will be able to:

- Construct and interpret histograms, stem leaf plots, and frequency tables for sets of data.
- Find mean, median, mode, range, standard deviation, percentiles, and quartiles.
- Calculate linear correlation coefficient; find equation of regression line and use equation to predict values.
- Apply the basic rules of addition, multiplication, and counting. Find conditional probability.
- Construct contingency tables and use them to find probabilities.
- Know when to use the binomial distribution, standard normal distribution, or a normal distribution as an approximation to a binomial distribution.
- Know when to apply the Central Limit Theorem.
- Determine confidence intervals for means and proportions and find sample sizes necessary for statistical analysis.
- Perform appropriate hypothesis tests.

Statement of Policy for Public Act No. 14-11: An Act Concerning Sexual Assault, Stalking and Intimate Partner Violence on Campus:

“The Board of Regents for Higher Education (BOR) in conjunction with the Connecticut State Colleges and Universities (CSCU) is committed to insuring that each member of every BOR governed college and university community has the opportunity to participate fully in the process of education free from acts of sexual misconduct, intimate partner violence and stalking. It is the intent of the BOR and each of its colleges or universities to provide safety, privacy and support to victims of sexual misconduct and intimate partner violence.”

ACCOMMODATIONS: Students with learning disabilities should contact the Learning Specialist, Matt Liscum, at 860-215-9265 or via email at mliscum@trcc.commnet.edu as soon as possible to ensure timely accommodations. Students with physical disabilities should contact Elizabeth Willcox at 860-215-9289 or via email at ewillcox@trcc.commnet.edu to facilitate accommodations. All testing accommodations MUST be discussed with the instructor in a timely manner, that is, *at least* one to two class meetings prior to any scheduled test for which accommodations are needed.

UNITED STATES DEPARTMENT OF EDUCATION AND OFFICE OF CIVIL RIGHTS TITLE IX STATEMENT OF POLICY:

“Title IX of the Education Amendments of 1972 (Title IX) prohibits discrimination based on sex in education programs and activities in federally funded schools at all levels. If any part of a school district or college receives any Federal funds for any purpose, all of the operations of the district or college are covered by Title IX.

Title IX protects students, employees, applicants for admission and employment, and other persons from all forms of sex discrimination, including discrimination based on gender identity or failure to conform to stereotypical notions of masculinity or femininity. All students (as well as other persons) at recipient institutions are protected by Title IX – regardless of their sex, sexual orientation, gender identity, part-or full-time status, disability, race, or national origin---in all aspects of a recipient’s educational programs and activities.”

If any student experiences sexual misconduct or harassment, and/or racial or ethnic discrimination on Three Rivers Community College Campus, or fears for their safety from a threat while on campus, please contact Vicki Baker, the Diversity Officer and Title IX Coordinator: 860-215-9208 (vbaker@trcc.commnet.edu)

ACADEMIC DISHONESTY:

Academic integrity is essential in all aspects of college coursework and learning. Communication or collaboration of any sort is prohibited during any exam. Academic misconduct is punishable in a number of ways, including a score of a zero on the assignment where the cheating took place, a grade of an F in the course and/or possible censure on your permanent record. All cases of academic dishonesty will be referred to the Academic Dean. Do not let yourself come under the suspicion of academic dishonesty.

DIGICATION:

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