Mat123 (Fall 2018, CRN# 32499, Sect. T2)
Principles of Statistics

Course Description: This course treats basic probability and statistics. Topics include exploratory data analysis (tables, graphs, central tendency and spread), basic probability calculations, binomial distributions, normal distributions, confidence intervals, and hypothesis testing.

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: Monday, Wednesday 1:30-2:45 rm. D226
Office Hours: Monday, Wednesday 3:00-3:30 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: Neil Weiss, *Introductory Statistics, 10th Edition,* ISBN # 978-0-321-98917-8

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

Tests and Exam:

		Chapters of Textbook
1	Wednesday, Sept. 19, 1:30	2, 3
2	Wednesday, Oct. 17, 1:30	4, 5
3	Wednesday, Nov. 14, 1:30	6, 7
4	Wednesday, Dec. 5, 1:30	8, 9
Final	Wednesday, Dec 12, 1:30	All chapters studied

Grading:

Hand-in assignments (best 10)	35%	*Late assignments will not be accepted.*
Tests (best 3 of 4)	35%	
Final exam	30%	

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

Week of:	Chapter(s):	Topics Covered:
Aug. 27	2.1, 2.2, 2.3	Variables and data
Sep. 3	2.4, 3.1, 3.2	Displaying data, measuring central tendency
Sep. 10	3.3, 3.4	Empirical rule, five-number summary, boxplot
Sep. 17	Review	**Test #1 Wednesday, Sep. 19 (Ch 2, 3)**
Sep. 24	4.1, 4.2, 4.3	Basic concepts and rules of probability
Oct. 1	4.4, 4.6	Contingency tables, multiplication rule, counting
Oct. 8	4.8, 5.1	Discrete variables and distributions
Oct. 15	5.2, 5.3	Binomial distribution
Oct. 22	Review	**Test #2 Wednesday, Oct. 24 (Ch 4, 5)**
Oct. 29	6.1, 6.2, 6.3, 6.5	Normal distribution, Normal approximation to binomial
Nov. 5	7.1, 7.2, 7.3	Sampling distributions
Nov. 12	Review	**Test #3 Wednesday, Nov. 14 (Ch 6, 7)**
Nov. 19	8.1, 8.2, 8.3	Estimating a population mean
Nov. 26	9.1, 9.2, 9.3	Hypothesis testing
Dec. 3	9.5, 9.5, 9.7	Further hypothesis testing **Test #4 Wednesday, Dec. 5 (Ch 8, 9)**
Dec. 10	Review	**Final Exam Wednesday Dec 12, 1:30 pm**

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 123, the student will be able to:

- Construct and interpret graphs (histograms, bar graphs, stem and leaf plots), and tables (frequency and relative frequency) for sets of data.
- Calculate and interpret three measures of center (mean, median, and mode) and select the appropriate one for the data presented.
- Calculate and interpret three measures of dispersion (range, standard deviation, and five-number summary) and select the appropriate one for the data presented.
- Solve and interpret word problems using the z-score to measure relative position.
- Understand and use the definition of probability and the basic rules of addition, multiplication, and counting to solve probability word problems.
- Understand and use contingency tables to solve probability word problems.
- Understand and apply the appropriate probability distribution (binomial, standard normal, or normal) needed to solve probability word problems.
- Explain what the central limit theorem and how it is used in inferential statistics.
- Determine appropriate sample sizes for estimating population means..
- Understand and develop confidence intervals for estimating population means.
- Understand and use hypothesis testing to test a claim about a population mean.

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.