## MAT 167, Principles of Statistics, Spring 2018, 11992 MW 3:00 – 4:15pm, room D226 Elizabeth Allen

**PREREQUISITE:** MAT\* K137 or MAT\* K137S with a "C" grade or better or appropriate placement

through multiple-measures assessment process.

**TEXT:** Elementary Statistics, 13th edition by Triola

MyStatLab: godwin68546

Also required: TI-83 or TI-84 calculator

**C**OURSE

**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 and confidence intervals.

Office Hours: Mondays 2:00 – 3:00 pm

Tuesdays 11:00 – 12:00 noon Wednesdays 2:00 – 3:00 pm Thursdays 11:00 – 12:00 noon or by appointment in C206

Email eallen@trcc.commnet.edu, Phone (860) 215-9452

Attendance:

Your attendance in the classroom during class time, participation in classroom work/projects and preparation for each class is required and is essential to success in the course. If you are unable to attend, you must email me prior to a missed class. An absence is excused only for valid reasons (to be determined by the instructor) and if notification is given prior to a missed class via email or phone message. (If a phone message is left it must be followed up with an email to count as an excused absence.) All students start the semester with 50 "bonus" Attendance/Participation points. Points will be deducted for unexcused absences, late arrivals, early departures, cell phone, tablet or computer use during class time. Makeups for tests will be given only for EXTREME circumstances and if arrangements are made prior to the missed exam (documentation will be required at the instructor's discretion). Any makeup must be completed before the next class period starts and will be completed in the testing center. If you are not in class on these days or do not complete them in time then you will receive a 0. All written assignments are due at the beginning of class on the due date. If you do not hand in an assignment this way you will receive a 0. Please note that this class begins at 3:00 pm and ends at 4:15 pm. You are expected to be in class the entire time or you will lose points for attendance/participation.

Course Setup:

This course will be a "flipped course." What that means is that you will read the chapter and PowerPoints and watch the videos in advance of class. Then you will be take a brief quiz on the material from the reading and videos at the beginning of the next class. These are just to make sure you did the reading and watched the videos and took notes. Then we will review concepts and go over examples in class. If you are late for class, you will not be permitted to take the quiz and you will not be permitted to make it up. The next day will consist of a graded in class group activity on the current topic.

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## MyStatLab:

In addition to the readings and videos, you will have homework in MyStatLab. This is a required part of the course. You will need to purchase a code to get into MyStatLab and get registered by January 31st so you can begin working on these assignments. Please be sure the check the due dates in MyStatLab so that you can complete assignments in a timely manner.

#### **MEASUREMENTS:**

3 tests	100 points each	300
HW in MSL	see below	100
10 Quizzes	see below	100
Assignments	see below	300
Final project	100 points	100

Final grade = (total points earned/900) \*100

Grade equivalents: A 93 – 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, N if the student completed less than 60% of work.

Class Expectations: The expectation is that you are spending 2-3 hours of reading and doing homework for this class for every "academic" hour we meet in class. We meet 3 "academic" hours per week, therefore you should expect to spend at least 6 - 9 hours per week on this class, outside of class meetings, every week!

#### **Cell Phone Policy:**

All cell phones must be turned OFF or MUTED before entering the classroom and properly placed in a bag or pocket (not left on a desk). Cell phones may not be used for calculators in class. A visible cell phone during an exam will result in a 0 for that exam.

Class Cancellation: In case of inclement weather, check the college website for class cancellations or call 860-215-9000 for recorded message on the college phone. If for some reason, I need to cancel class I will post an announcement in Blackboard. You should set up your school email so that it will forward to your personal email so you can receive these notifications in a timely manner.

#### MyCommNet Alert:

MyCommNet is a system that sends text messages and emails to anyone signed up in the event of a campus emergency. Additionally, TRCC sends messages when the college is delayed or closed due to weather. All students are encouraged to sign up for myCommNet Alert.

#### Plagiarism and Academic

## Honesty:

Academic integrity is essential in all aspects of college coursework and learning. I have zero tolerance for academic dishonesty. It is expected that YOU complete all your assigned ALEKS work. Communication or collaboration of ANY sort is ABSOLUTEY 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.)

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**Support Services**: Tutorial services, peers, or meeting with me for extra help during office hours.

**Disabilities:** Students with learning disabilities should contact the Learning Specialist, Matt

Liscum, at 860-215-9265 or via email at <a href="mailto:mliscum@trcc.commnet.edu">mliscum@trcc.commnet.edu</a> as soon as possible to ensure timely accommodations. Students with physical disabilities

should contact Elizabeth Willcox at 860-215-9289 or via email at <a href="mailto:ewillcox@trcc.commnet.edu">ewillcox@trcc.commnet.edu</a> 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.

**Digication:** All students are required to maintain an online learning portfolio in Digication that

uses the college template. Through this electronic tool students will have the opportunity to monitor their own growth in college-wide learning. The student will keep his/her learning portfolio and may continue to use the Digication account after graduation. A Three Rivers General Education Assessment Team will select and review random works to improve the college experience for all. Student work reviewed for assessment purposes will not include names and all student work will remain private and anonymous for college improvement purposes. Students will have the ability to integrate learning from the classroom, college, and life in general, which will provide additional learning opportunities. If desired, students

will have the option to create multiple portfolios.

BOARD OF REGENTS FOR HIGHTER EDUCATION AND CONNECTICUT STATE COLLEGES AND UNIVERSITIES POLICY REGARDING SEXUAL MISCONDUCT REPORTING, SUPPORT SERVICES AND PROCESSES POLICY

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

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)

Acceptance Policy: After reading this syllabus, choosing to stay registered for this course exemplifies

your acceptance of the syllabus and all policies and consequences outlined in

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the syllabus. If you do not agree with any of the terms in the syllabus, you are free to withdraw.

**Disclaimer:** The instructor has the right to change/modify this syllabus at any time with proper

notification to the class.

**Topics:** These are the topics we will be covering in class.

## **Chapter 1 Introduction to Statistics**

Statistical and Critical Thinking

Types of Data

Collecting Sample Data

#### **Chapter 2 Summarizing and Graphing Data**

Frequency Distributions

Histograms, Bar Graphs, Stem and Leaf plots, Dot plots

Graphs that Enlighten and Graphs that Deceive

#### Chapter 3 Statistics for Describing, Exploring and Comparing Data

Measures of Center

Measures of Variation

Measures of Relative Standing and Boxplots

#### **Chapter 4 Probability**

Basic Concepts of Probability

Addition Rule

Multiplication Rule: Basics

Multiplication Rule: Complements and Conditional Probability

Counting

#### **Chapter 5 Discrete Probability Distributions**

**Probability Distributions** 

Binomial Probability Distributions

Parameters for Binomial Distributions

## **Chapter 6 Normal Probability Distributions**

The Standard Normal Distribution

**Applications of Normal Distributions** 

Sampling Distributions and Estimators

Central Limit Theorem

#### **Chapter 7 Estimates and Sample Sizes**

**Estimating a Population Proportion** 

Estimating a Population Mean

# **Chapter 8 Hypothesis Testing**

Basics of Hypothesis Testing

Testing a Claim about a Proportion

Testing a Claim about a Mean

#### **Chapter 9 Inferences from Two Samples**

Two Proportions

Two Means: Independent Samples

Two Dependent Samples (Matched Pairs)

## **Chapter 10 Correlation and Regression**

Correlation

Regression