MAT* 167 – Principles of Statistics Online

Patrick Keller

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Prerequisite:

Intermediate Algebra (MAT* K137 or K137S) with a "C" grade or better or appropriate placement using the multiple measures assessment process.

Text: Elementary Statistics, 13th edition by Triola

MyStatLab: keller02734

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 and confidence intervals.

Measurements:

Tests	3	100 points each
MyStatLab Homework	10	15 points each
Quizzes	5	20 points each
Projects	2	150 points each
Discussions	15	150 Points

Final grade = total points earned / 1000 * 100

Grade equivalents:

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. If less than 60% of the work for the course is completed, a UF grade will be recorded and reflected as an F on your transcript.

Attendance:

Attendance for this course will be determined by your accessing of course materials. Evidence of attendance can be in the form of completed assignments or discussion board posts. Attendance matters! Please know that lack of attendance may have financial aid ramifications for those of you using aid to pay for your courses.

MyStatLab:

Homework assignments will be assigned through MyStatLab. For this course, you will need to purchase a code and register by **September 1st** so you can work on the assignments. Homework assignments are not timed, but do have due dates. Due dates for homework assignments will appear in MyStatLab. While each homework assignment is only a small portion of your final grade, know that the homework questions are designed to develop your confidence and understanding of the material that will be on your tests, in your discussions, and will help you on your projects.

Tests:

Tests will be given in MyStatLab. These tests will be timed, and logging out of MyStatLab during a test session will end the session. Tests also have deadlines! The tests will shut off at 11:59 pm of the date that appears as the deadline on the schedule below. **Make sure to start your test session well before that time** so that you have ample time to complete the session.

Quizzes:

Quizzes will be in Blackboard, and will be due by 11:59 on the date that appears as the deadline on the schedule below. Quizzes are designed to make sure that you are keeping up with course materials.

Discussion:

Our course is online, but I'm hoping that we have quality conversations about statistics, and learn even more than our course outline might suggest! There will be a discussion topic posted each week, and you will need to participate in the discussion each week. Remember, discussion is not only a valuable way to engage with your understanding of the course content, discussion is a part of your grade! Below are guidelines on how I will be assigning you a discussion grade, but please know that I encourage you to go further than these requirements and really engage in conversation!

- You must make at least one post before each Monday at 11:59 pm.

- You must respond to another student' s post, or alternatively post a second post of your own.

  o If you respond to another student, your response should contribute to a dialogue. I encourage you to post things like "Good job" and "Great post" whenever you'd like, but please know that your post needs to include more in order to receive credit.

  o If you choose to make a second post instead of directly responding to another student's post, your post will need to demonstrate consideration for how other responses to the initial discussion influence your thoughts about the discussion topic, whether you've got a new idea for the topic, and if so, what your new idea is.

  o The response or second post is due on Thursday by 11:59 pm.

Projects:

The projects for this course will be posted to Blackboard. Projects will be due by 11:59 PM on the due date listed below.

Office Hours:

Office hours are by appointment. Email me at pkeller@threerivers.edu or call me at 860-215-9211.

Disabilities:

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. Additionally, all scheduling of approved tests in the testing center is the responsibility of the student.

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.

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 Maria Krug, Title IX Coordinator; (860) 215-9208; mkrug@trcc.commnet.edu.

A Disclaimer:

The instructor has the right to change or modify this syllabus at any time with proper notification to the class. Notification will take the form of email.

Topics:

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

Schedule

Week 1

8/29 – Discussion 1

Week 2

9/2 - Discussion 2 initial response

9/5 – Homework 1 & Discussion 2

Week 3

9/9 – Discussion 3 initial response

9/12 – Homework 2 & Discussion 3

Week 4

9/15 Quiz 1

9/16 Discussion 4 initial response

9/19 Homework 3 & Discussion 4

Week 5

9/23 Discussion 5 initial response

9/26 Test 1 & Discussion 5

Week 6

9/29 Quiz 2

9/30 Discussion 6 initial response

10/3 Homework 4 & Discussion 6

Week 7

10/7 Discussion 7 initial response

10/10 Homework 5 & Discussion 7 & Project 1 Due

Week 8

10/13 Quiz 3

10/14 Discussion 8 initial response

10/17 Homework 6 & Discussion 8

Week 9

10/21 Discussion 9 initial response

10/24 Test 2 & Discussion 9

Week 10

10/28 Discussion 10 initial response

10/31 Homework 7 and Discussion 10

Week 11

11/3 Quiz 4

11/4 Discussion 11 initial response

11/7 Homework 8 & Discussion 11

Week 12

11/11 Discussion 12 initial response

11/14 Homework 9 & Discussion 12

Week 13

11/18 Discussion 13 initial response

11/21 Homework 10 & Discussion 13

Week 14

11/26 Quiz 5 & Discussion 14 (Only one part discussion this week)

Week 15

12/5 Test 3

Week 16

12/9 – Discussion 15 initial response

12/12 - Project 2 Due! & Discussion 15