McLennan COMMUNITY COLLEGE

WACO, TEXAS

COURSE SYLLABUS AND INSTRUCTOR PLAN

INTRODUCTION TO STATISTICS

MATH 1342.L88

An Online 16-week Course

Co-Requisite Course with MATH 0308.L88

Instructor: Jess Collins

COVID 19 Notice:

McLennan Community College is committed to providing you with every resource you need to reach your academic goals. We are also concerned for your safety. We are working through COVID-19 guidelines to make sure we offer a safe environment for you and our faculty. This will include smaller class sizes to manage social distancing and proper cleaning techniques. You will have the advantage of a physical classroom experience but may also need to work part of the time online as we adjust to limited classroom capacity. This will also allow us the flexibility to move online if so directed by federal, state and/or local COVID 19 guidelines. Faculty and staff are preparing now to ensure that you have the best experience in the midst of these uncertain times.

Introduction to Statistics

MATH 1342.L88

Course Description:
Collection, analysis, presentation and interpretation of data, and probability. Analysis includes descriptive statistics, correlation and regression, confidence intervals and hypothesis testing. Use of appropriate technology is recommended. Provides a study of statistical description of frequency distributions; sampling; elementary principles of probability distributions, both binomial and normal; estimation of parameters; tests of hypotheses; linear regression and correlation; and an introduction to the use of a graphing calculator for computations and graphing.
Access to a computer with reliable internet is required.

Prerequisites and/or Corequisites:
Prerequisite: TSI math complete or co-requisite MATH 0308 or completion of college-level math course or consent of division chair.
Semester Hours 3 (3 lec)

Course Notes and Instructor Recommendations:

- **This course is linked with online MATH 0308.L88; topics in this course will be coordinated with the Math 0308 course.**

• Make attendance a priority.
• Read the textbook to preview material and gain some understanding before we cover material in class.
• Aim for 100% on your homework to enhance your understanding and your grade.
• Complete online homework with a score of at least 70% before each scheduled exam.

Instructor Information:
Instructor Name: Jess Collins
MCC jcollins@mclennan.edu
Office Phone Number: 299-8176
Office Location: Math 226 B
Office/Teacher Conference Hours: (by email, phone, or ZOOM

MWF 10:00 - 11:30 am
4:30 – 7:00pm
Tu – Th 9:30 am – 11:00 am
7:00 – 8:30 pm
Sat – Sun 5:00 – 7:00 pm

Required Text & Materials:
Required: Purchase the MyMathLab access card for this course. It gives access to the electronic textbook and all ancillaries.
Title: Elementary Statistics
Author: Mario Triola
Edition: 14
With MyStatsLab student Access Kit
Publisher: Pearson
ISBN: 9780134748535

A TI-83/84 graphing calculator is required to do the mathematical computation and graphing in the course.

Email Correspondence:
I will respond to student email within 24 hours for communication received Monday through Saturday of each week. It may be a bit slower response on Sunday, but I will try to respond to each email in a timely fashion. Be sure to contact me with questions and comments that you have about the course; I want to provide the help you need to be successful in the course.
Follow the instructions below when contacting me by email:

- Use your School email address…@mclennan.edu
- At the top of your email, indicate the course number and section: MATH 0308.L88
- Clearly express your questions (or comments) about any problems you are having in the course
- Give your first and last Name at the bottom of the email.

This will help me organize and file your questions so that I can email you in a timely fashion.

MCC Bookstore Website: http://www.mclennan.edu/bookstore/

Course Objectives and/or Competencies:
The following abbreviations Indicate core objectives in assessing college effectiveness, (ACE).
COM=Communication Skills, CT=Critical Thinking Skills, EQS=Empirical Quantitative Skills
Upon successful completion of this course, students will:
1. Explain the use of data collection and statistics as tools to reach reasonable conclusions. (COM)(CT)(EQS)
2. Recognize, examine and interpret the basic principles of describing and presenting

data. (COM)(CT)(EQS)
3. Compute and interpret empirical and theoretical probabilities using the rules of probabilities and combinatorics. (EQS)
4. Explain the role of probability in statistics. (COM)(EQS)
5. Examine, analyze and compare various sampling distributions for both discrete and continuous random variables. (COM)(CT)(EQS)
6. Describe and compute confidence intervals. (COM)(EQS)
7. Solve linear regression and correlation problems. (EQS)(CT)
8. Perform hypothesis testing using statistical methods. (EQS)(CT)(COM)

The math department will be assessing the 3 core competencies (Critical Thinking, Communication, Empirical & Quantitative Skills) each fall semester in all of our core courses. We will be using objective testing and oral/written presentations to collect our data.

• **Critical Thinking Skills(CT):** "to include creative thinking, innovation, inquiry, and analysis, evaluation and synthesis of information. This objective is critical to the study and understanding of statistics. Multiple exercises will be provided with each section, chapter exam and the final to allow for critical thinking.

• **Communication Skills (COM):** "to include effective development, interpretation and expression of ideas through written, oral and visual communication."

Statistics is all about describing samples and populations with numbers. It is a great opportunity to practice communication in mathematics. Each student will have the opportunity to present statistical concepts and interpret results to their classmates and instructor in verbal, written and visual form. A communication/presentation grade, 10% of the course grade will be assessed for each student. A faculty designed rubric will be supplied to the student and used in assigning part of this grade.

• Empirical and Quantitative Skills (EQS): "to include the manipulation and analysis of numerical data or observable facts resulting in informed conclusions." This objective is at the heart of math 1342 and we will assess these skills with each homework assignment, exam and classroom activity.

Methods of Teaching and Learning:

Lectures by Video and Power Point Presentation; homework assignments from MyMathLab; Quizzes from vocabulary and concepts; written problem assignments; short quizzes from videos, and Exams.

In an ONLINE class, students need to be persistent in "attending" class and participating in the learning of mathematical concepts by **watching instructional**

videos, reading from the electronic textbook, taking notes, discussing, and practicing new skills.
The instruction is given in Brightspace and MyLabMath (Pearson website). The homework assignments will be in the homework section under the **ASSIGNMENTS** button in MyLab Math (MLM).

❖ This ONLINE class is for students who are **comfortable working with a computer AND own a computer** or have regular access to a computer with high speed internet.

❖ This ONLINE class is for students who are **self-motivated to get their work done and able to seek support** when needed.

❖ **In this ONLINE class, ALL ASSIGNMENTS MUST BE DONE or the student will not be able to pass the class.**

* **Click Here for the Minimum System Requirements to Utilize MCC's D2L|Brightspace**
(**www.mclennan.edu/center-for-teaching-and-learning/teaching-commons/requirements**)
Click on the link above for information on the minimum system requirements needed to reliably access your courses in MCC's D2L|Brightspace learning management system.

Course Outline or Schedule:

The following course outline is tentative (subject to change); however, if changes are necessary, they will be posted as announcements in MyMathLab and in Brightspace.

Math 0308.L88/Math 1342.L88
Co-requisite Courses
Fall 2021

Tentative Calendar

Week	Dates	Topics	Dev Lessons	Stat Lessons
1	January 9 - 15	Common fractions Decimal fractions Percent Percentage Problems	Lesson 1 Lesson 2 Lesson 3 Lesson 3b	

2	January 16 – January 22	Order of Operations Venn Diagrams Bar Graphs Pie Charts	Lesson 4 Lesson 5 Lesson 6 Lesson 6b	
3	January 23 - 29	Statistical Thinking Types of Data Collecting Sample Data		Lesson 1 Lesson 2 Lesson 3
4	January 30 – February 5	Frequency Distributions Histograms Deceptive Graphs	Lesson 7	Lesson 4 Lesson 5 Lesson 6
5	February 6 - 12	Ratio & Proportion Solving Proportions Dimensional Analysis Algebraic concepts for solving linear equations Solve linear equations	Lesson 8 Lesson 9 Lesson 10 Lesson 11 Lesson 12	
6	February 13 - 19	Interpret & Use formulas Geometric Formulas Statistical Formulas	Lesson 13 Lesson 14 Lesson 15	

Week	Dates	Topics	Dev Lesson	Stat Lesson
7	February 20 - 26	Averages Weighted Mean Variation	Lesson 16	Lesson 7 Lesson 7 Lesson 8
8	February 27 – March 5	Percentiles, Boxplots Probability More Probability	 Lesson17 Lesson 18	Lesson 9 Lesson 10 Lesson 10b
Spring	**Break**	**March 6 - 12**		
9	March 13 - 19	Probability Distributions Binomial Probability		Lesson11 Lesson 12
10	March 20 - 26	Standard Normal Distribution Applications of Normal Distributions Sampling Distributions		Lesson 13 Lesson 14 Lesson 15
11	March 27 – April 2	Central Limit Theorem Confidence Intervals		Lesson 16 Lesson 17

		Estimating a Population Proportion		Lesson 18
12	April 3 - 9	Estimating a Population Mean Hypothesis Testing		Lesson 19 Lesson 20
13	April 10 - 16	Testing a Hypothesis for Population Proportion Testing a Hypothesis for Population Mean		Lesson 21 Lesson 22
14	April 17 - 23	Intro to Linear Relationships Slope and other characteristics of a line Scatterplots	Lesson 19 Lesson 20 Lesson 21	
15	April 24 - 30	Graphing a linear relationship Correlation	Lesson 22 Lesson 23	Lesson 23
16	May 1 - 7	Prepare for Final Exam Our final Exam: Monday, May 8		

Final Exam Week	May 8 - 12	Final exam, Monday May 8		

Tentative Exam Dates

EXAM #	DATE	TOPICS COVERED
1	Feb. 6 & 7	Topics from wk 1, wk2, wk3, and wk 4
2	March 2 & 3	Topics from wk 5, wk 6, wk 7, and wk 8
3	April 3 & 4	Topics from wk 9, wk 10, wk 11, and wk 12,
4	April 26 & 27	Topics from wk 13, wk 14, and wk 15
Final Exam	Monday, May 8	Chapters 3, 4, 5, 6, 7 and 8. There will be more questions from chapter 8 since you will not have previously tested over this chapter.

Course Grading Information:

Grades will be earned as A……..90% - 100%
B …….80% - 89%
C …….70% - 79%
D …….60% - 69%
F …….. Below 60%

The final grade will be determined from
Quizzes (20%),
MyStatLab Homework (30%),
Exams 40%
Final exam (10%)
Total: 100%

If an Exam is missed, the final exam grade will replace that grade. If more than one exam is missed, then the missed exam grades will be zeroes.
If all exams are taken on time, then the Final Exam grade will replace the lowest exam grade (this assumes that the final exam grade is higher than the lowest exam grade).

Late Work, Attendance, and Make Up Work Policies:

Homework assignments from each Unit have a specific due date. All assignments must be completed with at least a grade of 70% by the due date in order to take the Unit Exam. At the end of the semester, I will drop the lowest grade from each of the Unit homework assignments (three grades will be dropped). After taking the Unit Exam, previous homework assignments will be reopened for you to complete or increase your grade. You can work the homework assignments as many times as you like, raising your grade on each to 100%.

Exams must be taken on time; you will have at least two days to log in and take the Unit Exam. You may take each Unit Exam two times with the first attempt being a Practice Exam and the second attempt resulting in your Unit Exam grade. Be sure to contact me if there is any difficulty in being able to take the exam in the indicated time window. You will have 90 minutes to take each Unit Exam.
Quizzes and other assignments must be completed by the specified due date for the assignment. There will be no makeup work for these, but I will drop the two lowest grades before calculating the Quiz average for the course.
The Final Exam will be available for only one day and may be taken only once; you will have ***two hours*** *to complete the exam from the time you begin the exam. The final exam score will replace the lowest Unit Exam grade, assuming that it is higher than the Unit Exam score.*

Student Behavioral Expectations or Conduct Policy:

"Students are expected to maintain classroom decorum that includes respect for other students and the instructor, prompt and regular attendance, and an attitude that seeks to take full advantage of the education opportunity."

Attendance:

Since this is an online class, I will keep track of your attendance by your work on homework assignments, quizzes, discussion board, and exams. If you complete at least two homework assignments during the week, I will count you present for the week. If you work on only one assignments during the week, I will report **one absence** for the week. If you do not work on any homework assignments during the week, I will report **two (2) absences** for the week. **If you accumulate 8 absences, you will be dropped from the course.**

* **Click Here for the MCC Attendance/Absences Policy**
(www.mclennan.edu/highlander-guide-2016-17/policies)
Click on the link above for the college policies on attendance and absences. Your instructor may have guidelines specific to this course.

Updated 11/04/2022

McLennan COMMUNITY COLLEGE

ACADEMIC RESOURCES/POLICIES

Accommodations/ADA Statement:

Any student who is a qualified individual with a disability may request reasonable accommodations to assist with providing equal access to educational opportunities. Students should contact the Accommodations Coordinator as soon as possible to provide documentation and make necessary arrangements. Once that process is completed, appropriate verification will be provided to the student and instructor. Please note that instructors are not required to provide classroom accommodations to students until appropriate verification has been provided by the Accommodations Coordinator. For additional information, please visit www.mclennan.edu/disability.

Students with questions or who require assistance with disabilities involving physical, classroom, or testing accommodations should contact:

disabilities@mclennan.edu 254-299-8122
Room 319, Student Services Center

Title IX:

We care about your safety, and value an environment where students and instructors can successfully teach and learn together. If you or someone you know experiences unwelcomed behavior, we are here to help. Individuals who would like to report an incident of sexual misconduct are encouraged to immediately contact the acting Title IX Coordinator at titleix@mclennan.edu or by calling, Dr. Claudette Jackson, (Diversity, Equity & Inclusion/Title IX) at (254) 299-8465. MCC employees are mandatory reporters and must report incidents immediately to the Title IX Coordinator. Individuals may also contact the MCC Police Department at (254) 299-8911 or the MCC Student Counseling Center at (254) 299-8210. The MCC Student Counseling Center is a confidential resource for students. Any student or employee may report sexual harassment anonymously by visiting http://www.lighthouse-services.com/mclennan/.

Go to McLennan's Title IX webpage at www.mclennan.edu/titleix/. It contains more information about definitions, reporting, confidentiality, resources, and what to do if you or someone you know is a victim of sexual misconduct, gender-based violence or the

crimes of rape, acquaintance rape, sexual assault, sexual harassment, stalking, dating violence, or domestic violence.

Student Support/Resources:

MCC provides a variety of services to support student success in the classroom and in your academic pursuits to include counseling, tutors, technology help desk, advising, financial aid, etc. A listing of these and the many other services available to our students is available at http://www.mclennan.edu/campus-resource-guide/

Academic Support and Tutoring is here to help students with all their course-related needs. Specializing in one-on-one tutoring, developing study skills, and effectively writing essays. Academic Support and Tutoring can be found in the Library and main floor of the Learning Commons. This service is available to students in person or through Zoom from 7:30 am - 6:00 pm Monday through Thursday and 7:30 am - 5:00 pm on Friday. You can contact the Academic Support and Tutoring team via Zoom (https://mclennan.zoom.us/j/2542998500) or email (ast@mclennan.edu) during the above mentioned times.

College personnel recognize that food, housing, and transportation are essential for student success. If you are having trouble securing these resources or want to explore strategies for balancing life and school, we encourage you to contact either MCC CREW – Campus Resources Education Web by calling (254) 299-8561 or by emailing crew@mclennan.edu or a Success Coach by calling (254) 299-8226 or emailing SuccessCoach@mclennan.edu. Both are located in the Completion Center located on the second floor of the Student Services Center (SSC) which is open Monday-Friday from 8 a.m.-5 p.m.

Paulanne's Pantry (MCC's food pantry) provides free food by appointment to students, faculty and staff. To schedule an appointment, go to https://mclennan.co1.qualtrics.com/jfe/form/SV_07byXd7eB8iTqJg. Both the Completion Center and Paulanne's Pantry are located on the second floor of the Student Services Center (SSC).

MCC Foundation Emergency Grant Fund:

Unanticipated expenses, such as car repairs, medical bills, housing, or job loss can affect us all. Should an unexpected expense arise, the MCC Foundation has an emergency grant fund that may be able to assist you. Please go to https://www.mclennan.edu/foundation/scholarships-and-resources/emergencygrant.html to find out more about the emergency grant. The application can be found at https://www.mclennan.edu/foundation/docs/Emergency_Grant_Application.pdf.

MCC Academic Integrity Statement:

Go to www.mclennan.edu/academic-integrity for information about academic integrity, dishonesty, and cheating.

Minimum System Requirements to Utilize MCC's D2L|Brightspace:

Go to https://www.mclennan.edu/center-for-teaching-and-learning/Faculty-andStaffCommons/requirements.html for information on the minimum system requirements needed to reliably access your courses in MCC's D2L|Brightspace learning management system.

Minimum Technical Skills:

Students should have basic computer skills, knowledge of word processing software, and a basic understanding of how to use search engines and common web browsers.

Backup Plan for Technology:

In the event MCC's technology systems are down, you will be notified via your MCC student email address. Please note that all assignments and activities will be due on the date specified in the Instructor Plan, unless otherwise noted by the instructor.

Email Policy:

McLennan Community College would like to remind you of the policy (http://www.mclennan.edu/employees/policy-manual/docs/E-XXXI-B.pdf) regarding college email. All students, faculty, and staff are encouraged to use their McLennan email addresses when conducting college business.

A student's McLennan email address is the preferred email address that college employees should use for official college information or business. Students are expected to read and, if needed, respond in a timely manner to college emails. For more information about your student email account, go to www.mclennan.edu/studentemail.

Instructional Uses of Email:

Faculty members can determine classroom use of email or electronic communications. Faculty should expect and encourage students to check the college email on a regular basis. Faculty should inform students in the course syllabus if another communication method is to be used and of any special or unusual expectations for electronic communications.

If a faculty member prefers not to communicate by email with their students, it should be reflected in the course syllabus and information should be provided for the preferred form of communication.

Email on Mobile Devices:

The College recommends that you set up your mobile device to receive McLennan emails. If you need assistance with set-up, you may email Helpdesk@mclennan.edu for help.

You can find help on the McLennan website about connecting your McLennan email account to your mobile device:

- Email Setup for iPhones and iPads
- Email Setup for Androids

Forwarding Emails:

You may forward emails that come to your McLennan address to alternate email addresses; however, the College will not be held responsible for emails forwarded to an alternate address that may be lost or placed in junk or spam filters.

For more helpful information about technology at MCC, go to MCC's Tech Support Cheat Sheet or email helpdesk@mclennan.edu.

Disclaimer:

The resources and policies listed above are merely for informational purposes and are subject to change without notice or obligation. The College reserves the right to change policies and other requirements in compliance with State and Federal laws. The provisions of this document do not constitute a contract.