



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 including your safety. We will continue to monitor the evolving situation with COVID 19 and adjust our safety guidelines to make sure we offer a safe environment for you and our faculty. Please make sure to consult your faculty and the MCC website at <https://www.mclennan.edu/crisis-management/coronavirus-updates/index.html> on any changes to these guidelines.

**An Equal Opportunity Institution**

**Spring 2022**

# 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

# Introduction to Statistics

MATH 1342.L88

---

## **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: 13

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

# Introduction to Statistics

## MATH 1342.L88

---

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, taking notes, discussing, and practicing new skills.**

## Introduction to Statistics

### MATH 1342.L88

---

The instruction is given in Brightspace, and 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](http://www.mclennan.edu/center-for-teaching-and-learning/teaching-commons/requirements)  
([www.mclennan.edu/center-for-teaching-and-learning/teaching-commons/requirements](http://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 10 - 16	Common fractions Decimal fractions Percent Percentage Problems	Lesson 1 Lesson 2 Lesson 3 Lesson 3b	

# Introduction to Statistics

MATH 1342.L88

2	January 17 - 23	Order of Operations Venn Diagrams Bar Graphs Pie Charts	Lesson 4 Lesson 5 Lesson 6 Lesson 6b	
3	January 24 - 30	Statistical Thinking Types of Data Collecting Sample Data		Lesson 1 Lesson 2 Lesson 3
4	January 31 – February 6	Frequency Distributions Histograms Deceptive Graphs	Lesson 7	Lesson 4 Lesson 5 Lesson 6
5	February 7 - 13	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 14 - 20	Interpret & Use formulas Geometric Formulas Statistical Formulas	Lesson 13 Lesson 14 Lesson 15	

# Introduction to Statistics

MATH 1342.L88

Week	Dates	Topics	Dev Lesson	Stat Lesson
7	February 21 - 27	Averages Weighted Mean Variation	Lesson 16	Lesson 7 Lesson 7 Lesson 8
8	February 28 – March 6	Percentiles, Boxplots Probability More Probability	Lesson 17 Lesson 18	Lesson 9 Lesson 10 Lesson 10b
9	March 14 - 20	Probability Distributions Binomial Probability		Lesson 11 Lesson 12
10	March 21 - 27	Standard Normal Distribution Applications of Normal Distributions Sampling Distributions		Lesson 13 Lesson 14 Lesson 15
11	March 28 – April 3	Central Limit Theorem Confidence Intervals		Lesson 16 Lesson 17

# Introduction to Statistics

MATH 1342.L88

		Estimating a Population Proportion		Lesson 18
12	April 4 - 10	Estimating a Population Mean Hypothesis Testing		Lesson 19  Lesson 20
13	April 11 - 17	Testing a Hypothesis for Population Proportion  Testing a Hypothesis for Population Mean		Lesson 21  Lesson 22
14	April 18 - 24	Intro to Linear Relationships  Slope and other characteristics of a line  Scatterplots	Lesson 19  Lesson 20  Lesson 21	
15	April 25 – May 1	Graphing a linear relationship  Correlation	Lesson 22  Lesson 23	Lesson 23
16	May 2 - 6	Final Exam Week  Our final Exam: Tuesday, May 3		



# Introduction to Statistics

## MATH 1342.L88

---

---

### **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 (10%),

MyStatLab Homework (30%),

Application and Data Problems (10%)

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.*

## Introduction to Statistics

### MATH 1342.L88

---

*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](http://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.

# McLennan

C O M M U N I T Y

## 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](http://www.mclennan.edu/disability).

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

[disabilities@mclennan.edu](mailto: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 Title IX Coordinator at [titleix@mclennan.edu](mailto:titleix@mclennan.edu) or by calling Dr. Drew Canham (Chief of Staff for Diversity, Equity & Inclusion/Title IX) at (254) 299-8645. Individuals also may contact the MCC Police Department at 299-8911 or the MCC Student Counseling Center at MCC 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/](http://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/>

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 a Success Coach by calling (254) 299-8226 or emailing [SuccessCoach@mclennan.edu](mailto:SuccessCoach@mclennan.edu). Students may visit the Completion Center Monday-Friday from 8 a.m.-5 p.m. to schedule a meeting with a Success Coach and receive additional resources and support to help reach academic and personal goals. Paulanne's Pantry (MCC's food pantry) provides free food by appointment to students, faculty and staff based on household size. Text (254) 870-7573 to schedule a pantry appointment. The Completion Center and 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](https://www.mclennan.edu/foundation/docs/Emergency_Grant_Application.pdf).

**MCC Academic Integrity Statement:**

Go to [www.mclennan.edu/academic-integrity](http://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-and-Staff-Commons/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.

**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](mailto:Helpdesk@mclennan.edu) for help.

**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.

**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.