



RANGER COLLEGE  
RANGER, TEXAS

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COURSE SYLLABUS

**Elementary Statistical Models**

**MATH 1342**

**3 credit hours**

**Spring 2021**

**INSTRUCTOR:**

**Rebecca Plowman**

## MATH 1342 – Spring 2021

INSTRUCTOR: Rebecca Plowman  
EMAIL: rplowman@rangercollege.edu  
OFFICE: Ranger: Office 6 Erath: Faculty Offices  
PHONE: Cell Phone 254-595-2008  
HOURS: M: Erath Office 8:30am-10:30am  
T: Ranger Office 9am-10:45am  
W: Ranger Office 9am-10:30am  
R: Ranger Office 9am-10:45am

### **I. Texas Core Curriculum Statement of Purpose**

Through the Texas Core Curriculum, students will gain a foundation of knowledge of human cultures and the physical and natural world, develop principles of personal and social responsibility for living in a diverse world, and advance intellectual and practical skills that are essential for all learning.

### **II. 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.

### **III. Required Background or Prerequisite**

Passed MATH 0342, MATH 0314, or the TSI will 950.

### **IV. Required Textbook and Course Materials**

Neil A Weiss, Elementary Statistics, 9th Edition, Pearson Publishing ISBN-13: 9780321989390

MyMathLab code, which is provided by the instructor unless you are dual enrollment.

Microsoft Excel, you have access to Microsoft Office through the college.

Laptop, Chromobook, tablet, etc. for in class exams

## V. Course Purpose

This course focuses on quantitative literacy in logic, patterns, and relationships. The course involves the understanding of key mathematical concepts and the application of appropriate quantitative tools to everyday experiences.

## VI. Learning Outcomes

- Explain the use of data collection and statistics as tools to reach reasonable conclusions. Recognize, examine and interpret the basic principles of describing and presenting data.
- Compute and interpret empirical and theoretical probabilities using the rules of probabilities and combinatorics.
- Explain the role of probability in statistics.
- Examine, analyze and compare various sampling distributions for both discrete and continuous random variables.
- Describe and compute confidence intervals.
- Solve linear regression and correlation problems.
- Perform hypothesis testing using statistical methods.

## VII. Core Objectives

This course meets the following of the six Core Objectives established by Texas:

- X **Critical Thinking Skills (CT)** – Creative thinking, innovation, inquiry, and analysis; evaluation and synthesis of information
- X **Communication Skills (COM)** – effective development, interpretation and expression of ideas through written, oral, and visual communication
- X **Empirical and Quantitative Skills (EQS)** – The manipulation and analysis of numerical data or observable facts resulting in informed conclusions
- X **Teamwork (TW)** – The ability to consider different points of view and to work effectively with others to support a shared purpose or goal

- Social Responsibility (SR)** – Intercultural competence, knowledge of civic responsibility, and the ability to engage effectively in regional, national, and global communities
- Personal Responsibility (PR)** – The ability to connect choices, actions, and consequences to ethical decision-making

### VIII. Methods of Instruction

In class lectures that may be accessed over Zoom or as a recording afterclass.  
Pre-recorded lessons (If online.)  
Collaborative work in the classroom (If face to face).  
Additional videos offered on Blackboard.

### IX. Methods of Assessment

We will use a weighted average in this course to score your assessment. The methods of assessment and its portion of total grade are:

**15% Homework:** You will be provided access to MyMathLab, which is an online homework management system. You can access MyMathLab in Blackboard. Homework will be due two Sundays after the material is covered in class (except the last week of assignments). Homework is an integral part of learning. Those who do the work, are those who learn. **(CT, COM, EQS, PR)**

**20% Projects:** There will be 2 to 3 statistical projects in this course. One project is created by the mathematics department and given to all MATH 1342 students. The other project(s) will be created by the instructor. The projects will require group work. You can meet other students over Zoom, email, text, etc. You will not be required to meet face to face if you are uncomfortable. Projects will require you to collect data, find data, or use provided data, run a statistical analysis, and interpret the statistic. **(CT, COM, EQS, TW, PR)**

**40% Midterm Exams:** There will be two middle of the term exams in this cover. Each one will cover between 2 to 3 chapters. They will be available on MyMathLab. You will take the exams during normal class times, unless we have to go virtual. You will need to bring a laptop, chromebook, tablet, etc. to take the exams. **(CT, COM, EQS, PR)**

**25% Final Exam:** The final exam will be given during the last week of the semester. It will be a cumulative exam, most likely available on MyMathLab. The exam will be taken in person. You will need to bring a laptop, chromebook, tablet, etc. to take the exam. **(CT, COM, EQS, PR)**

Grading scale: A = 90-100%    B = 80-89    C = 70-79    D = 60-69    F = Below 60

### **X. Course/Classroom Policies**

Please attend class everyday. You may come to the classroom to attend or over Zoom. A link will be provided if you need to attend, via Zoom, from homework or work.

Be courteous to your instructor and other students. Bear in mind that this is a difficult time for all of us and mishaps may happen. You will behave as mature adults and exhibit proper classroom decorum.

You will not cause any distractions that might prevent other students from learning. Those who deviate from this policy will not be permitted to remain in class.

Please contact your instructor first if you have any issues. I am the one who has to fix the problem and contacting me is the fastest way to solve it.

If you have accommodations, I need the paperwork stating which accommodations are allowed. You will also have to inform me if you wish to use your accommodations. They are not automatically given.

You may use cellphones **only** for calculators and to take pictures of notes. Do not text in class. If you have an emergency, please exit the classroom to use your phone.

Come prepared to class. You will need to bring paper and pencils/tablet/powerpoints notes to class to take notes. The method of note taking is up to you.

You will have to bring your own laptop, tablet, chromebook etc. for exams. Make sure you can run MyMathLab on the device you choose.

A student found to be cheating or copying on an exam or quiz will be given a grade of “0”. Repeated acts of cheating may result in being dropped from class with a grade of “F”.

You may wear earbuds and listen to music during exams, only.

It is a college policy that we can choose to drop you from the course if you have 6 or more unexcused absences. If you are dropped from this course, it may cause you to be dropped from other courses.

You will be required to wear masks in the classroom. Masks must face your nose and mouth. If you do not wear a mask or wear a mask improperly, you will be asked to leave the classroom and will be counted as absent.

If you are ill, especially with a cough, fever, loss of smell, or shortness of breath, please join the class over Zoom and not face to face.

Do not eat in the classroom. You may sip a drink if needed.

## MATH 1342 – Spring 2021

The semester ends May 6th, 2021. No work will be taken after this date.

### XI. Course Outline/Schedule

Week	Dates	Sections
1	Jan 19-22 (No Classes on 18 <sup>th</sup> )	Introductions and 1.1-1.4
2	Jan 25-29	Section 2.1 - 2.3
3	Feb 1-5	Section 2.4-2.5
4	Feb 8-12	Section 3.1- 3.2
5	Feb 15-19	Sections 3.3 -3.5
6	Feb 22-26	Sections 4.1 -4.3 Exam 1 (Chapter 1, 2 and 3)
7	Mar 1-5	Sections 4.4-4.5 and 5.1
8	Mar 8-12	Spring Break
9	Mar 15-19	Sections 5.2- 5.4
10	Mar 22-26	Sections 5.5-5.6 and 6.1
11	Mar 29- Apr 1 (Closed Friday)	Sections 6.2 -6.4

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12	Apr 5-9	Sections 7.1-7.2 Exam 2 (Chapters 4, 5, and 6)
13	Apr 12-16	Sections 7.3-7.4 and 8.1
14	Apr 19-23	Section 8.2-8.3 and 9.1
15	Apr 26-30	Section 9.2 - 9.3 and Review or Catch up
16	May 3-6 (Finals 4-6)	Review and Finals (cumulative)

### **XII. Non-Discrimination Statement**

Admissions, employment, and program policies of Ranger College are nondiscriminatory in regard to race, creed, color, sex, age, disability, and national origin.

### **XIII. ADA Statement**

Ranger College provides a variety of services for students with learning and/or physical disabilities. Students are responsible for making initial contact with the Ranger College Counselor, Gabe Lewis (glewis@rangercollege.edu). It is advisable to make this contact before or immediately after the semester begins.