



RANGER COLLEGE
RANGER, TEXAS

COURSE SYLLABUS

Elementary Statistics

MATH 1342

3 credit hours

INSTRUCTOR:

Isaac Voegtle

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EMAIL: ivoegtle@rangercollege.edu
OFFICE: Ranger: Connected to Room 3 in Gladwell/Science Building
Erath: Across the hall from the Cosmetology entrance
HOURS: MW, Erath, 10:00-10:30, 12:00-13:30
TR, Ranger, 10:30-11:00, 12:25-13:40

1. Texas Core Curriculum Statement of Purpose

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.

2. Course Description

Presentation and interpretation of data, probability, sampling, correlation and regression, analysis of variance, and the use of statistical software.

3. Required Background or Prerequisites

There are no stated prerequisites for this course. Successful completion of MATH 0342 or equivalent is highly desired.

4. Required Textbook and Course Material

Neil A Weiss, Elementary Statistics, 9th Edition, Pearson Publishing
ISBN13: 9780321989390

MyStatLab Access Code, hand-held scientific calculator (TI-30 or equivalent recommended)

Note: If you acquired your book through the “includED” program, there is no MyStatLab access code kit with the book. You MUST purchase the access code kit separately.

5. 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.

6. Learning Outcomes

Upon successful completion of this course, the student will:

- 1) Explain the use of data collection and statistics as tools to reach reasonable conclusions.
- 2) Recognize, examine and interpret the basic principles of describing and presenting data.
- 3) Compute and interpret empirical and theoretical probabilities using the rules of probabilities and combinatorics.
- 4) Explain the role of probability in statistics.
- 5) Examine, analyze and compare various sampling distributions for both discrete and continuous random variables.

- 6) Describe and compute confidence intervals.
- 7) Solve linear regression and correlation problems.
- 8) Perform hypothesis testing using statistical methods.

7. Core Objectives

This course directly meets the following of the six Core Objectives:

- 1) **Critical Thinking Skills (CT)**– Creativethinking,innovation,inquiry,andanalysis;evaluationandsynthesisofinforma tion.
- 2) **Communication Skills (COM)**– Effectivedevelopment,interpretationandexpressionofideasthroughwritten,oral,and visualcommunication.
- 3) **Empirical and Quantitative Skills (EQS)**– Themanipulationandanalysisofnumericaldataorobservablefactsresultingininforme d conclusions.
- 4) **Teamwork (TW)**– Theabilitytoconsiderdifferentpointsofviewandtoworkeffectivelywithotherstosuppo rtasharedpurposeorgoal.
- 5) **Social Responsibility (SR)**–Intercultural competence, knowledge of civic responsibility, and the ability to engage effectively in regional, national, and global communities.
- 6) **Personal Responsibility (PR)**–The ability to connect choices, actions, and consequences to ethical decision-making.

8. Methods of Instruction

This is a multimedia class. Media may include informal lecture/demonstration, computer delivered homework and tutorials, PowerPoint units, and classroom manipulatives. At least one assignment will be conducted in which students will work in three or four member teams to accomplish specific objectives. An example could be for teams to be assigned a specific population and variable, to gather a sample from that population, to compute the mean and standard deviation of the sample, and to deliver a summary report to the entire class.

9. Methods of Assessment

Quizzes (20%)(CT,COM,EQS,PR)–There will be 3–5 short in-class quizzes which usually include verbal response items as well as typical numerical/statistical problems.

MyStatLab (20%)(CT,COM,EQS,PR)–This grade component will be determined by combining the percent completion of all assignments with the composite average of the assignments completed.

Major Exams (35%)(CT,COM,EQS,PR)–There will be 2-5 class period length exams, each covering multiple chapters from the textbook.

Final Exam (25%)(CT,COM,EQS,PR)–This is a comprehensive exam covering the entire content of the course.

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

10. Classroom Policies/procedures

- 1) Regular and punctual attendance in all classes is considered essential for optimum academic success.
- 2) Students are expected to be seated by the beginning of the class.
- 3) If a student has the equivalence of three weeks of unofficial absences, the student may be dropped with a grade of F (Ranger College Catalog).
- 4) Excessive tardiness (6) may be considered as an absence.
- 5) It is the responsibility of the student to inform the instructor of an excused absence. An absence may be excused by the Dean for participation in an authorized college activity or for a valid medical reason.
- 6) Any student who is disruptive to the class will be dismissed from the class and may be dropped from the course. Any student misconduct will be reported to the Dean of Student Services (Student Handbook).
- 7) Any student found with unauthorized material(s) such as cheat sheets, electronic devices, etc. during a quiz/exam or copying from another student's work will be subject to disciplinary action.
- 8) Please do not bring cellphones, iPods, or other electronic devices to class or be sure they are turned off. Computers (laptops) may be used with special permission and only for math class material.
- 9) No use of tobacco products is permitted in any campus buildings.

11. Course Outline/Schedule

Weeks 1–3	Chapters 1-2
Weeks 4–6	Chapters 3-4
Weeks 7–8	Chapters 5-6
Weeks 9–10	Chapters 7–8
Weeks 11–14	Chapter 9
Week 15	Final Exam

12. Non-Discrimination Statement

Admission, employment, and program policies of Ranger College are non-discriminatory with regard to race, creed, color, sex, age, disability, and national origin.

13. ADA Statement

Ranger College provides a variety of services for students with learning and/or physical disabilities. The student is 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.

14. Revision of Syllabus

The content in this syllabus is subject to change based upon the needs of a particular class. Any revisions will be distributed in writing.