

THE UNIVERSITY OF TEXAS AT EL PASO

COLLEGE OF SCIENCE

DEPARTMENT OF MATHEMATICAL SCIENCES

Course #: 33280

Course Title: STAT 2480: Elementary Statistical Methods

Credit Hrs: 4

Term: Summer 2021

Course Meetings: Online Course  
Jun 07, 2021 - Jul 30, 2021

Prerequisite Courses: One of 1320, 1508, 1411, TCCN 1314 or equivalent

Course Fee: (if applicable) None

Instructor: Francis Biney

Contact Info: Math Department Phone number: (915) 747-5761

E-mail address: fbiney@utep.edu

E-mails will be answered between 9:00 am and 4:00 pm Mondays-Fridays. E-mails received outside of these windows will be addressed during the next.

Office Hrs: TR 3.30pm - 5pm via Zoom.

Textbook The Practice of Statistics in the Life Sciences, fourth edition, by Baldi and Moore, **ISBN-13: 978-1-319-01337-0**

Available only on Macmillan website and UTEP Bookstore  
The Sapling Plus online homework package is required.



- Required Technology/  
Materials
- Sapling Plus homework account
    - must access from Blackboard initially
  - MiniTab 19 –Statistical Software
    - the license provided by UTEP

You will also need regular access to a computer, stable, consistent internet, Blackboard, and your UTEP e-mail account.

Course Objectives (Learning Outcomes): STAT 2480 is an introductory statistics class primarily for biological and life sciences. At the successful completion of this class:

- I. A student will be able to identify key components of a statistical study, including experimental design, sampling plan, descriptive statistics, statistical analysis, and will be able to critique the conclusion of the study based on strengths and weaknesses throughout the paper.
- II. A student will be able to calculate and interpret data utilizing both numerical and graphical summaries to support conclusions.
- III. A student will be able to calculate and model problems using fundamental probability properties and basic probability distributions.
- IV. A student will be able to choose the appropriate statistical test for a given data set, perform the test, and utilize the conclusion to make a decision about a formal hypothesis.
- V. A student will be able to design and implement all of the elements of a statistical study, including experimental design, sampling plan, descriptive statistics, statistical analysis, and will present the findings in a formal research paper.

Activities and Assignments: The course is split into topic modules. Modules include a combination of textbook reading, lecture notes, writing assignments, labs, and homework.

Video Lectures: Lecture and lab videos will be posted in each module with note in OneNote. You are expected to do the assigned readings from your book and watch the associated videos.

Exams: There are three exams for the course: two mid-terms and a comprehensive final. The exams will be conducted on Sapling. You will have a practice exam for each that counts towards your Learning Curve (participation) grade.

Project: As a group, you will design a research study, collect and analyze data, and present your findings in a written paper. This is a collaborative effort that will involve updates throughout the semester. The final project will be submitted during the last week of the semester. Specific due dates and assignments can be found in the Project Module of Blackboard.

Labs: Labs consist of a quiz and a lab assignment from the manual. All of these components are together in a folder for each module.

Homework: There are 12 homework assignments for the course, one per non-test module. They are solely conducted on Sapling Plus. Due date information can be found on the Calendar and in Sapling Plus.

Learning Curve: Learning curve is an adaptive learning tool in Sapling plus. These assignments introduce you to the textbook material with easy questions. You get points for each question you get correct and do not lose points for questions you miss. Once you have reached the target goal for the Learning Curve, it is considered complete. You will be graded on the number of Learning Curves you complete.

Course Schedule: A comprehensive course schedule is attached. Semester highlights are included.

- June 7 – Classes Begin
- June 14 – Census Day (Last day to drop without a W)
- **June 23 – Exam 1 Due 11.59pm**
- **July 7– Exam 2 Due 11.59pm**
- JULY 9 – Course Drop Deadline
- **July 29 – Final Exam Due 11.59pm**
- JULY 30 – Last Day of Classes

Grading Policy: You will be graded on homework, exams, labs, discussion boards, learning curve, and the project. The course grade is based on:

- 15% Exam I
- 15% Exam II
- 20% Cumulative Final Exam
- 20% Project
- 20% Homework Assignments
- 5% Lab Quizzes
- 5% Learning Curve

Letter grades are determined according to the following scale:

Grade	Score
A	90-100
B	80-89
C	70-79
D	60-69
F	<60

Activity Specific Policies: Online homework assignments in Sapling Plus have ten attempts per question. Ensure you have answered all the sub-questions before submitting, as those empty submissions are counted as incorrect. You may request a 3-day extension for a 15% (flat) penalty.

Make-up Policy: Lab quizzes and Learning Curves cannot be submitted late for credit. If you feel like you have some extenuating circumstance, or have an excused absence that will keep you from completing an assignment or quiz, please contact me right away and be prepared to show supporting documentation. I reserve the right to excuse or exempt assignments and quizzes if the situation is warranted.

Exam: A make-up exam will only be given in extraordinary circumstances (severe illness, death in the immediate family), and with appropriate documentation (e.g., doctor's note).

Attendance Policy: Because this is an online class, participation is assessed by the completion of module activities. You can fully participate in class by:

- Completing all assigned readings and watching video lectures
- Completing all module activities (labs, assignments)
- Completing all major assignments (exams, project)

Each aspect of the course builds on the previous topic. By completing things in the order provided, you are building the foundation needed for the next step.

Failure to submit any weekly assignment for two weeks, or failure to complete an exam will result in being dropped from the course.

**Academic Integrity Policy:** The University policy is that all suspected cases or acts of alleged scholastic dishonesty must be referred to the Dean of Students for investigation and appropriate disposition. Any student who commits an act of scholastic dishonesty is subject to discipline. Scholastic dishonesty includes, but is not limited to cheating, plagiarism, collusion, the submission for credit of any work or materials that are attributable in whole or in part to another person, taking an examination for another person, any act designed to give unfair advantage to a student or the attempt to commit such acts. Each student is responsible for notice of and compliance with the provisions of the Regents' Rules and Regulations, which are available for inspection electronically at <https://www.utsystem.edu/offices/board-regents/regents-rules-and-regulations>.

All students are expected and required to obey the law, to comply with the Regents' Rules and Regulations, with System and University rules, with directives issued by an administrative official in the course of his or her authorized duties, and to observe standards of conduct appropriate for the University. A student who enrolls at the University is charged with the obligation to conduct himself/herself in a manner compatible with the University's function as an educational institution.

Any student who engages in conduct that is prohibited by Regents' Rules and Regulations, U. T. System or University rules, specific instructions issued by an administrative official or by federal, state, or local laws is subject to discipline, whether such conduct takes place on or off campus or whether civil or criminal penalties are also imposed for such conduct.

**Disability Statement:** If you need accommodations for your success, please contact The Center for Accommodations and Support Services (CASS) at 747-5148, or by e-mail to [cass@utep.edu](mailto:cass@utep.edu), or visit their office located in UTEP Union East, Room 106. For additional information, please visit the CASS website <https://www.utep.edu/student-affairs/cass/>

The student is responsible for informing me of the accommodations needed and will be responsible for proactive actions regarding having accommodations met.

**Military Statement:** If you are a military student who may potentially be called to military service or training during the semester, you are encouraged to contact your instructor as soon as possible.

**Drop Deadlines:** The last day to drop the course without a "W" is JUNE 14. The last day to drop the course with a "W" is JULY 9. Students who decide to drop the course must process a drop form, with the Registrar's Office, before July 9. Please note that the College of Science will remain aligned with the University and will not approve any drop requests after that date.

Key: Q## = Lab Quiz , HW## = Homework

Week	Dates	Module	Monday	Wednesday	Friday	Sunday	University Notes
1	June 7	M00: Getting Started  M01: Experimental Design	Reading: Syllabus, Introduction Video Watch: MiniTab download, Course Navigation  Reading: Chapter 6 and 7 Watch: Video Lecture	Q00: Syllabus Quiz  Q01: Lab Random Selection Q02: Lab Random Assignment Learning Curve: 6 and 7		HW00: Practice Assignment  HW01: Chapters 6 and 7	