

THE UNIVERSITY OF TEXAS AT EL PASO
COLLEGE OF SCIENCE
DEPARTMENT OF MATHEMATICAL SCIENCES

Course #: **STAT 3325**
(CRN: **12528**)
Course Title: Probability and Applied Statistics
Credit Hrs: 3
Term: **Fall 2024 (Instruction 08/26/2024-12/05/2024)**
Course Meetings & Location: **10:30am – 11:50am MW, Cotton Memorial Building 201**
Prerequisite Courses: MATH 1312; Calculus II (or departmental approval)
Instructor: Ritwik Bhattacharya
Office Location: Bell Hall 223
Contact Info: Phone: (915) 747-5761 [O]
ritwik@utep.edu
Fax: (915) 744-6502
Office Hours: 10am-12pm Weekdays via Zoom. Please email to make an appointment.
Class Web page: UTEP Blackboard Portal
Textbook(s), Materials:
Course Description and Learning Outcomes: <https://www.openintro.org/book/os/>

Introduces students to probability and statistics applicable to mathematics majors planning a teaching career. By the end of this course, students should be able to read a word problem, realize the uncertainty that is involved in a situation described, select a suitable probability model, estimate and test its parameters on the basis of real data, compute probabilities of interesting events, and make appropriate conclusions. This course covers theory and applications of probability models, random variables, discrete and continuous probability distributions, joint and conditional distributions, sampling distributions, central limit theorem, hypothesis testing, confidence intervals, and exposure to simple linear regression.

Topic Outline

- Week 1: Introduction to Data
- Week 2: Numerical Summaries
- Week 3: Probability
- Week 4: Probability
- Week 5: Distributions
- Week 6: Distributions
- Week 7: Distributions
- Week 8: Distributions and Inference
- Week 9: Numerical Inference
- Week 10: Numerical Inference
- Week 11: Inference
- Week 12: Inference
- Week 13: Topics in Inference
- Week 14 topics on inference
- Week 15: Regression

Final Exam: TBA (check separate detailed calendar)

Course Activities/Assignments: There will be short **weekly or bi-weekly** assignments that must be submitted for credit. Additionally, a weekly quiz will be posted on blackboard. Suggested homework problems will be posted each week. **These problems are for your own practice.** However, one or more problems from this list may appear on your weekly quiz. Exams will be announce one week in advance.

Course Schedule:

08/26	Class starts.
11/01	Class drop deadline.
12/04	Class ends.
12/09 - 12/13	Final Exam Period.
<u>Holidays</u>	
09/02	Labor Day.

Grading Policy:

- 10% Online weekly or bi-weekly assignment.
- 15% Quizzes.
- 20% Exam 1
- 20% Exam 2
- 15% Group Project-Data analysis using Minitab
- 20% Cumulative Final Exam

Grade Score

A	> 90
B	80-89
C	70-79
D	60-69
F	<60

Make-up Policy: There is NO make-up exam; if you must miss a midterm exam, e.g., with a university excuse or due to illness, contact the instructor in order to discuss the situation. The best and fastest way to contact instructor is via the provided email found above.

Incomplete grades are given only in extreme instances and only with prior permission of the instructor. All assigned projects must be turned in on time. No late coursework or project will be accepted, except extreme scenarios.

Attendance Policy: Class attendance is required. Students are expected to actively participate in class discussions and group activities. A late arrival of 15 minutes or more will be considered as an absence.

Class attendance is **REQUIRED** and helpful to decide borderline grades. If a student must be absent from a particular class, he/she will be responsible for notifying the instructor and catching up with course material. **FOUR** or more unexcused absences will result in an instructor-initiated drop or grade failing / reduction. Your academic advisor will be consulted before final action is decided and taken. If you expect to miss **TEN** or more class hours for **ANY REASON**, please don't consider taking this 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, 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 <http://www.utsystem.edu/bor/rules/homepage.htm>

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.

Civility Statement: Calculators may not be shared during exams. Please do not use cell phones, pagers, iPods, MP3 players, blue tooth devices, etc. during class or exam time. Cell phones and pagers should be set to silent or vibrate, and any calls should be taken outside of class. Please do not wear headsets or blue tooth devices during class. Please don't talk in class. Cell phone calculators may not be used on exams. Active participation in class is expected, teamwork in class will be implemented.

Disability Statement: If a student has or suspects she/he has a disability and needs an accommodation, he/she should contact The Center for Accommodations and Support services (CASS) at 747-5148 or at <cass@utep.edu> or go to Room 106 Union East Building. The student is responsible for presenting to the instructor any CASS accommodation letters and instructions.

Military Statement: If you are a military student with the potential of being called to military service and/or training during the semester, please contact me by the end of the first week of class.

UTEP College of Science Policies: The UTEP Fall 2024 drop/withdraws deadline is November 1st, 2024. The College of Science will remain aligned with the University and not approve any drop requests after that date.

All grades of Incomplete must be accompanied by an Incomplete Contract that has been signed by the instructor of record, student, departmental chair, and the dean. Although UTEP will allow a maximum of one year to complete this contract, the College of Science requests it be limited to month based upon completion data. A grade of Incomplete is only used in extraordinary circumstances confined to a limited event such as a missed exam, project, or lab. If the student has missed a significant amount of work (e.g., multiple assignments or tasks), a grade of Incomplete is not appropriate or warranted.