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

<table>
<thead>
<tr>
<th>Course Number</th>
<th>STAT 3325 CRN:16608</th>
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<tbody>
<tr>
<td>Course Title</td>
<td>Probability and Applied Statistics</td>
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<tr>
<td>Credit Hours</td>
<td>3</td>
</tr>
<tr>
<td>Term</td>
<td>Fall 2018</td>
</tr>
<tr>
<td>Course Meetings &amp; Location</td>
<td>MW 10:30 am to 11:50 am, 08/27/2018 – 12/06/2018 (Instruction), Liberal Arts Building 210</td>
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<tr>
<td>Prerequisite Courses</td>
<td>MATH 1312; Calculus II</td>
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<tr>
<td>Website</td>
<td><a href="https://sites.google.com/site/utepcourses/stat-3325">https://sites.google.com/site/utepcourses/stat-3325</a></td>
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<tr>
<td>Instructor</td>
<td>Xiaogang Su, Ph.D.</td>
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<tr>
<td>Office Location</td>
<td>Bell Hall 320</td>
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<tr>
<td>Contact Info</td>
<td><a href="mailto:xsu@utep.edu">xsu@utep.edu</a></td>
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<tr>
<td>Office Hours</td>
<td>MW 2:00-3:00 pm or by appointment</td>
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### Course Objectives (Learning Outcomes):
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.

### Course Activities/Assignments:
Each class period will have in-class work completed within the period. Additionally, out of class homework assignments are given. A semester long project, mid-terms and a final exam will also assess learning.

There will be a semester long project. Instructions on the project will be given as the semester progresses. Some of the major points of the project will be data collection, data analysis and writing a final report.

### Assessment of Course Objectives:
Homework assignments will be given on a weekly or bi-weekly basis. A grading rubric will be used for the semester project (this rubric will be included on a separate file). Daily in-class assignments are graded for completeness only.
Course Schedule:

Note that exam dates are approximate and are subject to change. The exact exam date will be announced at least one week in advance.

Topic 01: Introduction to Data
Topic 02: Probability
Topic 03: Probability
Topic 04: Probability
Topic 05: Distributions
Topic 06: Distributions
Topic 07: Distributions;
Topic 08: Distributions and Inference
Topic 09: Numerical Inference
Topic 10: Numerical Inference
Topic 11: Inference;
Topic 12: Inference
Topic 13: Topics in Inference
Topic 14: Simple Linear Regression
Topic 15: Multiple Linear Regression (if time allows)
Topic 16: Logistic Regression

Final Exam: Friday, December 14th 10:00 am – 12:45 pm

Sep 12th Census Day. If a student drops before the census date, neither the course nor a grade will appear on the student’s academic record. This is the last day to drop without a W.

Nov 2nd Fall Drop/Withdrawal Deadline.

Dec 10th – 14th - Finals Week.

Grading Policy:

20% Homework, Computer Projects, In-class quizzes, and participation
20% Exam 1
20% Exam 2
20% Exam 3
25% Final Exam

Note that the total adds up to 105, which contains 5 extra credits if one completes all assignments and exams.

Letter grades are determined according to the following scale:

Grade Score
A  90 +
B  80-89
C  70-79
D  60-69
F  <60
Make-up Policy: If class is missed for a valid and documented reason, the daily in-class assignments and exams may be made-up for full credit. Check your calendars now for potential conflicts with scheduled class assignments or exams. All other assignments should be turned in on time. If a scheduled homework assignment is late, 10% of the possible credit will be deducted for each day the assignment is not turned in (including weekends).

Attendance Policy: You must attend class to turn in the in-class assignments and homework. Attendance is expected and accommodations will be made only if you are unable to attend class due to illness, family emergency or any other pressing issue.

Academic Integrity Policy: Please see http://academics.utep.edu/Default.aspx?tabid=23785

Civility Statement: This is a class where participation is required. We work problems together as a class and in groups. Participation in the class work is required.

Disability Statement: If a student has or suspects she/he has a disability and needs an accommodation, he/she should contact the Disabled Student Services Office (DSSO) at 747-5148 or at <dss@utep.edu> or go to Room 106 Union East Building. The student is responsible for presenting to the instructor any DSS 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 course of the semester, you are encouraged to contact me as soon as possible.

UTEP College of Science Policies: The UTEP Fall 2018 deadline is Nov 2nd, 2018. 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.