

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

Course CRN #: 36021  
Course Title: STAT 4385: Applied Regression Analysis  
Credit Hrs: 3  
Term: Summer 2017 (Instruction Jul 11, 2017 - Aug 03, 2017)  
Course Meetings & Location: MTWRF 7:00 am - 9:10 am; **LART 308**  
Prerequisite Courses: Minimum Grade of C on STAT 2480 or 3330 or 3320  
Course Fee: (if applicable) None  
Instructor: Desmond Koomson  
Office Location: Bell Hall 215  
Contact Info: Phone # 915-747-7004  
E-mail address: dkoomson@utep.edu  
Fax # 915-747-5806 (Math Department)  
Emergency Contact: 915-747-5761 (Math Department)  
Office Hrs: MW 1:00 – 2:00 pm  
Textbook(s), Materials: Required: *A Second Course in Statistics: Regression Analysis*, 7th Edition by Mendenhall & Sincich.

Suggested: *Special reprint of Applied Linear Statistical Models*, 5th ed., by Kutner, Neter, Nachtsheim & Li, 2012

Course Description and (Learning Outcomes): Students will learn to apply appropriate statistical techniques on model building, fitting, validation and subsequent inferences for various problems. Through assigned homework, class discussions and hands-on labs, students will also acquire skills to identify real problems that require advanced mathematical and statistical knowledge.

The course will cover statistical inference (hypothesis tests and confidence intervals), simple and multiple linear regression, experimental design. This course will provide a coverage of topics and methodologies common in survival analysis. Students will have the opportunity to gain hands-on experience with real-world data projects.

- Topic Outline
1. Introduction & Review: probability, expectation, distributions, statistical inference, types of regression models.
  2. Simple linear regression models
  3. Multiple linear regression models
  4. Model selection
  5. Model diagnostics
  6. Several special models: one/two-way ANOVA, ANCOVA, interaction, polynomial models.

Activities/Assignments: Reading assignments, homework assignments, day-by-day class schedule with due dates, class-handouts are all on **BLACKBOARD**.

The course will be taught with in-class instruction. Homeworks will be assigned throughout the semester. We will also have midterm exams, project work and a final exam. **NO LATE COURSEWORK WILL BE ACCEPTED, EXCEPT EXTREME SCENARIOS.**

Course Schedule: July 13 - Class Census Day. Last day to drop without a W.  
July 4 - No class (Independent day)  
July 28 - Course Drop Deadline  
July 10 - No class (Summer I Final Exams)  
August 4 - **Final Exam Period (Friday, 7:00 am - 9:45 am)**

Grading Policy: You will be graded on homework, in-class examinations, and the project. The course grade is based on:

25% Homework Assignments (due at the beginning of class)  
15% Exam I (**07/21**)  
15% Exam II (**07/28**)  
25% Cumulative Final Exam  
20% Project

Calculators **ARE** not to be shared on exams. Cell phone calculators are not permitted on exams.

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

Make-up Policy: Late homework is not accepted. **Make-up examinations will not be given.** Students are required to take the two midterms and final exam at the scheduled times.

Attendance Policy: **Class attendance is REQUIRED and helpful to decide borderline grades. If a student has to be absent from a particular class, he/she will be responsible for catching up with course material. Lecture and Lab attendance are required and noted at the beginning of class; more than a total of TWO unexcused absences will result in final grade reduction. Students will not be dropped by the instructor. Students who decide to drop the course must process a drop form, in person, at the Registrar's Office, by July 28th.**

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 <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 quizzes and exams. Please do not use cell phones, pagers, iPods, MP3 players, blue tooth devices, etc. during class. 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 quizzes or 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