

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

Course #: STAT 5388 (CRN 21557)
Course Title: Multivariate Data Analysis
Credit Hrs: 3.0
Term: Spring 2020
Course Meetings & Location: MW 3:00–4:20 pm in Bell Hall 130A
Prerequisite Courses: MATH 5385 or STAT 5385 (or equivalent) with a grade of “C” or higher or Department/Instructor approval
Course Fee: N/A
Instructor: Dr. Michael Pokojovy
Office Location: Bell Hall 224
Contact Info: Phone: (915) 747-6761
E-mail address: mpokojovy@utep.edu
Fax # 915-747-6502 (Math Department)
Emergency Contact: 915-747-5761 (Math Department)
Office Hrs: W 2:00–3:00 pm and/or by appointment
Textbook(s), Materials: Required: Johnson, R.A. and Wichern, D.W. (2008). *Applied Multivariate Statistical Analysis*. 6th ed., Pearson.
Recommended: 1) Flury (1997). *A First Course in Multivariate Statistics*. Springer.
2) Flury, B. and Riedwyl, H. (1988). *Multivariate Statistics. A Practical Approach*. Chapman and Hall.
3) Mardia, K.V., Kent, J.T. and Bibby, J.M. (1979). *Multivariate Analysis*. Academic Press.

Course Description and *Contents*:
Learning Outcomes: This course will give an introduction to multivariate statistical analysis. The topics to be covered will include: multivariate normal distribution and multivariate generalizations of classical statistical tests; multivariate multiple linear regression and analysis of variance; principal components and discriminant analysis; factor analysis and canonical correlation, etc. Application examples of real data analysis in R will be provided.

Course Activities/Assignments: In-class lectures accompanied by program demonstrations and group discussions will be given. Sporadically, in-class quizzes will be administered. Homework and/or hands-on labs will be assigned on a regular basis.

Assessment of Course Objectives: Academic performance in this class will be the only factor used in determining the course grade. No extra credit work will be available to improve on any grade. Student performance will be evaluated based on the grades (see Grading Policy below) for in-class quizzes/exams and homework/labs. No late coursework will be accepted (with exception of some extreme situations as deemed by the instructor). Collaboration on homework/labs is generally permitted but each student is required to prepare his or her submission individually.

Identical (or nearly) identical submissions are not permitted and will result in a grade of zero points for the whole paper. All cases of alleged academic dishonesty will be referred to OSCCR for further investigation and adjudication.

- Tentative Course Schedule:
- Duration: 1/21/2020 – 5/7/2020
 - Midterm exam: TBA
 - Final exam: Mon, 5/11/2010 at 1:00 pm – 3:45 pm
 - Course drop/withdrawal deadline: Fri, 4/3/2020 (No “W” will be assigned for dropping the course after the deadline!)
 - Grades officially available online: Thu, 5/21/2020

Grading Policy: 20% Homework/labs/quizzes
20% Midterm exam
30% Final exam

Attendance and class participation will be used to help decide grades in “borderline” cases.

The usual grading scale will be used for this course:

90–100% = A
80–89% = B
70–79% = C
60–69% = D
0–59% = F

Make-up Policy: If a class is missed for a valid (as deemed by the instructor) and documented reason and the instructor is informed beforehand, the in-class assignments may be made-up for full credit. All other assignments must be turned in on time.

Attendance Policy: You are expected to attend class so that you can turn in in-class quizzes, labs and homework assignments. Lecture attendance is further required and helpful to decide the grade in “borderline” situations. Five or more unexcused absences will result in an instructor-initiated drop or final grade reduction. *Your academic advisor may be consulted before final action is decided and taken.* If a student has to be absent from a class, he/she will be responsible for catching up with the course material. Late arrivals are not permitted. Being late by 10 minutes or more or leaving the classroom before the class is dismissed will be considered as an absence.

Academic Integrity Policy: The University policy is that all suspected cases or acts of alleged scholastic dishonesty must be referred to the OSCCR 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: This is a class where participation is required. You will be seated at your desk or in front of a computer for the duration of your class and you are expected to follow the lecture/discussion and at various times complete in-class assignments. You are not allowed to browse the Internet during class time or work on any other material. If you regularly do not complete in-class assignments in a satisfactory manner, participate in class, or if you work on other material in class you will have points deducted from your in-class assignments portion of your grade. All class participants must and will be treated with respect.

Please do not use cell phones, 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 do not 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

College of Science Policies: All grades of Incomplete must be accompanied by an Incomplete Contract that has been signed by the instructor of record, student, Department 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.

Last updated on 1/16/2020

Disclaimer:

This syllabus may be subject to changes if these are deemed necessary by the instructor.
Despite all efforts, this syllabus may contain typos and errors.