EDRE 8306.05
Multivariate Analysis

INSTRUCTOR: RALPH CARLSON
TERM: FALL 2019
PHONE: (956) 665-3487/3466
EMAIL: ralph.carlson@utrgv.edu
OFFICE LOCATION: EEDU 1.208
OFFICE HOURS: MONDAY, TUESDAY, THURSDAY, FRIDAY 1:30–4:30 PM

CLASS TIME AND LOCATION: MONDAY 4:15:00–6:45 PM     EDCC 2.222

Textbook and/or Resource Material
Required Text:

Course Description and Prerequisites
The content of the course will include introduction to exploratory and confirmatory factor analysis; principal component theory; number of factor extracted; multivariate analysis of variance; path analysis, analysis of covariance structures; multiple discriminate analysis; and cluster analysis. Prerequisite: EPSY 6350 and EPSY 6351 or equivalent or consent of instructor.

Methods of Instruction (teaching)

A. Direct (expository) teaching
   1. Lecture method of presentation of content (topic or concept):
      gestalt → parts → gestalt →
   2. modeling
   3. demonstrations
   4. guided practice
   5. independent practice
   6. measurement and evaluation

This syllabus subject to change in order to better meet course objectives per discretion of instructor.
B. Activities
   1. homework (independent practice)
   2. class discussion
   3. review

C. Methods of Learning for Students
   1. mnemonic system(s)
   2. elaboration of meaning
   3. actively thinking about one’s thinking
   4. management of self and information (content or skills to be acquired)

D. Methods of Measurement and Evaluation
   1. grading of homework
   2. tests (there will be one tests during the semester)

†CROSSWALK COURSE
This course satisfies: Intellectual, professional, and academic development for graduate students, masters and doctoral, and faculty.

Learning Objectives/Outcomes for the Course
Student Learning Outcomes

After instruction/teaching:

1. Students will be able to utilize and engage rational thought and data.
2. Students will know what some of the criteria might be for knowing/science.
3. Students will know what some of the characteristics are for knowledge/science.
4. Students will know and understand the logic system for hypothesis testing.
5. Students will be able to partition variance and covariance into its various sources and error term(s).
6. Students will understand what statistical significance means and what it does not mean.
7. Students will be able to specify the criteria and conditions for falsifying, debunking, or deleting their most cherished hypotheses, ideas, and theories (Sir Francis Bacon).
8. Students will be able to interpret effect size/practical/functional/substantive significance: partial eta squared and Cohen’s d.
9. Students will be able to use exploratory and confirmatory data analysis side by side (Tukey, 1977).

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Course Technology

Tools: SPSS (Statistical Package for the Social Sciences)

Technical Requirements

Computer Hardware
To participate in this course, you should have easy access to a computer less than 5-years old with high-speed internet connection via cable modem, LAN or DSL. To ensure you are using a supported browser and have required plug-ins please refer to Supported Browsers, Plugins & Operating Systems for Blackboard Learn from Blackboards resource page.

Student Technical Skills
You are expected to be proficient with installing and using basic computer applications and have the ability to send and receive email attachments.

Software
Mozilla’s Firefox (latest version; Macintosh or Windows)
Google Chrome (latest version; Macintosh or Windows)
Adobe’s Flash Player & Reader plug-in (latest version)
Apple’s QuickTime plug-in (latest version)
Project Software – Optional

UTRGV University Policies

UTRGV Policy Statements

STUDENTS WITH DISABILITIES

Students with a documented disability (physical, psychological, learning, or other disability which affects academic performance) who would like to receive academic accommodations should contact Student Accessibility Services (SAS) as soon as possible to schedule an appointment to initiate services. Accommodations can be arranged through SAS at any time, but are not retroactive. Students who experience a broken bone, severe injury, or undergo surgery during the semester are eligible for temporary services.

Pregnancy, Pregnancy-related, and Parenting Accommodations
Title IX of the Education Amendments of 1972 prohibits sex discrimination, which includes discrimination based on pregnancy, marital status, or parental status. Students seeking
accommodations related to pregnancy, pregnancy-related condition, or parenting (reasonably immediate postpartum period) are encouraged to contact Student Accessibility Services for additional information and to request accommodations.

**Student Accessibility Services:**

**Brownsville Campus:** Student Accessibility Services is located in 1.107 in the Music and Learning Center building (BMSLC) and can be contacted by phone at (956) 882-7374 or via email at ability@utrgv.edu.

**Edinburg Campus:** Student Accessibility Services is located in 108 University Center (EUCTR) and can be contacted by phone at (956) 665-7005 or via email at ability@utrgv.edu.

**MANDATORY COURSE EVALUATION PERIOD:**

Students are required to complete an ONLINE evaluation of this course, accessed through your UTRGV account (http://my.utrgv.edu); you will be contacted through email with further instructions. Students who complete their evaluations will have priority access to their grades. Online evaluations will be available:

- **Module 1**
  - October 2\textsuperscript{nd} – 8\textsuperscript{th}
- **Module 2**
  - November 27\textsuperscript{th} – December 3\textsuperscript{rd}
- **Full Fall Semester**
  - November 14\textsuperscript{th} – December 4\textsuperscript{th}

**ATTENDANCE:**

Students are expected to attend all scheduled classes and may be dropped from the course for excessive absences. UTRGV's attendance policy excuses students from attending class if they are participating in officially sponsored university activities, such as athletics; for observance of religious holy days; or for military service. Students should contact the instructor in advance of the excused absence and arrange to make up missed work or examinations.

**SCHOLASTIC DISHONESTY:**

As members of a community dedicated to Honesty, Integrity and Respect, students are reminded that those who engage in scholastic dishonesty are subject to disciplinary penalties, including the possibility of failure in the course and expulsion from the University. Scholastic dishonesty includes but is not limited to: cheating, plagiarism, and 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. Since scholastic dishonesty harms the individual, all students and the integrity of the University, policies on scholastic dishonesty will be strictly enforced (Board of Regents Rules and Regulations and UTRGV Academic Integrity Guidelines). All scholastic dishonesty incidents will be reported to the Dean of Students.

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1.100 (Brownsville) or ESSBL 1.145 (Edinburg) or can be reached by email 
(ucentral@utrgv.edu) or telephone: (888) 882-4026. In addition to financial aid, U Central can 
assist students with registration and admissions.

Students seeking academic help in their studies can use university resources in addition to an 
instructor’s office hours. University Resources include the Learning Center, Writing Center, 
Advising Center and Career Center. The centers provide services such as tutoring, writing help, 
critical thinking, study skills, degree planning, and student employment. Locations are:

<table>
<thead>
<tr>
<th>Center Name</th>
<th>Brownsville Campus</th>
<th>Edinburg Campus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advising Center</td>
<td>BMAIN 1.400</td>
<td>ESWKH 101</td>
</tr>
<tr>
<td><a href="mailto:AcademicAdvising@utrgv.edu">AcademicAdvising@utrgv.edu</a></td>
<td>(956) 665-7120</td>
<td>(956) 665-7120</td>
</tr>
<tr>
<td>Career Center</td>
<td>BCRTZ 129</td>
<td>ESSBL 2.101</td>
</tr>
<tr>
<td><a href="mailto:CareerCenter@utrgv.edu">CareerCenter@utrgv.edu</a></td>
<td>(956) 882-5627</td>
<td>(956) 665-2243</td>
</tr>
<tr>
<td>Counseling Center</td>
<td>EUCTR 109</td>
<td>BSTUN 2.10</td>
</tr>
<tr>
<td><a href="mailto:Counseling@utrgv.edu">Counseling@utrgv.edu</a></td>
<td>(956) 665-2574</td>
<td>(956) 882-3897</td>
</tr>
<tr>
<td>Learning Center</td>
<td>BMSLC 2.118</td>
<td>ELCTR 100</td>
</tr>
<tr>
<td><a href="mailto:LearningCenter@utrgv.edu">LearningCenter@utrgv.edu</a></td>
<td>(956) 882-8208</td>
<td>(956) 665-2585</td>
</tr>
<tr>
<td>Writing Center</td>
<td>BUBLB 3.206</td>
<td>ESTAC 3.119</td>
</tr>
<tr>
<td><a href="mailto:WC@utrgv.edu">WC@utrgv.edu</a></td>
<td>(956) 882-7065</td>
<td>(956) 665-2538</td>
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Course Policies
Attendance Policy (Refer to UTRGV Policy)

Calendar of Activities

Include in this section a table or list that provides information for students regarding important dates, assignments or activities. The UTRGV academic calendar can be found at http://my.utrgv.edu at the bottom of the screen, prior to login. Some important dates for Spring 2017 include:

August 26   First day of classes
August 29   Last day to add a course or register for Fall 2019
September 2 Labor Day Holiday – NO classes
November 13 Last day to drop a course; will count toward the 6-drop rule
November 28 - 29 Thanksgiving Holiday – NO classes
December 5  Study Day – NO classes
December 6 - 12 Final Exams
December 13 - 14 Commencement Exercises