EDRE 8302.01
Quantitative Methods

INSTRUCTOR: RALPH CARLSON
TERM: FALL 2019
PHONE: (956) 665-3487
EMAIL: ralph.carlson@utrgv.edu
OFFICE LOCATION: EEDU 1.208
OFFICE HOURS: MONDAY~FRIDAY 2:30~4:30 PM

CLASS TIME AND LOCATION: FRIDAY 1:30~4:00 PM  EDCC 2.222

Textbook and/or Resource Material
Required Text:


Course Description and Prerequisites
The content of this course will include exploratory and confirmatory data analysis, introduction to conditional probability and Bayesian statistics, central tendency, variance, normal, t chi square, and F distributions, bivariate correlation and regression analysis, t-test between means, goodness of fit and test of independence chi square, independent groups Model I one-way ANOVA, and two and three-way factorial ANOVA. There will be an emphasis on hypothesis testing, Type I and II errors, an understanding of statistical significance and practical or functional significance. Prerequisite: NONE

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

This syllabus subject to change in order to better meet course objectives per discretion of instructor.
6. small group/cooperative learning
7. measurement and evaluation

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 three 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 Knowledge Requirements
You are expected to be proficient with installing and using basic computer applications and have the ability to send and receive email attachments.

Major Requirements, Demonstration of Mastery and Evaluation
Assignments and Assessments

There will be three tests given:

1. Test one covering Chapters 1 through 4 in Hinkle
2. Test two covering Chapters 5, 9, 16, 17, 19, and 20 in Hinkle
3. Test three covering Chapters 7, 8, 10, 13, 14, and 15 in Hinkle

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:

<table>
<thead>
<tr>
<th>Module</th>
<th>Time Frame</th>
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<tbody>
<tr>
<td>Module 1</td>
<td>October 2nd – 8th</td>
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<tr>
<td>Module 2</td>
<td>November 27th – December 3rd</td>
</tr>
<tr>
<td>Full Fall Semester</td>
<td>November 14th – December 4th</td>
</tr>
</tbody>
</table>

**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.
SEXUAL MISCONDUCT and MANDATORY REPORTING:

In accordance with UT System regulations, your instructor is a “Responsible Employee” for reporting purposes under Title IX regulations and so must report to the Office of Institutional Equity & Diversity (eie@utrgv.edu) any instance, occurring during a student’s time in college, of sexual misconduct, which includes sexual assault, stalking, dating violence, domestic violence, and sexual harassment, about which she/he becomes aware during this course through writing, discussion, or personal disclosure. More information can be found at www.utrgv.edu/equity, including confidential resources available on campus. The faculty and staff of UTRGV actively strive to provide a learning, working, and living environment that promotes personal integrity, civility, and mutual respect that is free from sexual misconduct, discrimination, and all forms of violence. If students, faculty, or staff would like confidential assistance, or have questions, they can contact OAVP (Office for Victim Advocacy & Violence Prevention) at 665-8287, 882-8282, or OAVP@utrgv.edu.

COURSE DROPS: Recommended on all syllabi; may be modified by the instructor as long as it is not inconsistent with UTRGV policy.

According to UTRGV policy, students may drop any class without penalty earning a grade of DR until the official drop date. Following that date, students must be assigned a letter grade and can no longer drop the class. Students considering dropping the class should be aware of the “3-peat rule” and the “6-drop” rule so they can recognize how dropped classes may affect their academic success. The 6-drop rule refers to Texas law that dictates that undergraduate students may not drop more than six courses during their undergraduate career. Courses dropped at other Texas public higher education institutions will count toward the six-course drop limit. The 3-peat rule refers to additional fees charged to students who take the same class for the third time.

STUDENT SERVICES:

Students who demonstrate financial need have a variety of options when it comes to paying for college costs, such as scholarships, grants, loans and work-study. Students should visit the Students Services Center (U Central) for additional information. U Central is located in BMAIN 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 Advising Center, Career Center, Counseling Center, Learning Center, and Writing 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>
</tbody>
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This syllabus subject to change in order to better meet course objectives per discretion of instructor.
Course Policies
Attendance Policy (Refer to UTRGV Policy)

Calendar of Activities

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

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