CRIJ 3305-03: Statistical Applications in Criminal Justice (Fall 2018)

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Office Hours:
Friday 9:30am-10:30am
Or by appointment

CLASS TIME AND LOCATION:
Friday 10:40am-1:10pm
BMAIN 2.236, Brownsville Campus

COURSE DESCRIPTION:
This course examines descriptive and inferential statistics with application to criminology and criminal justice. For several decades, criminologists have been relying on statistics to understand the nature, prevalence, and/or trend of crime, and to explain probable causes of crime and delinquency. Nowadays, a majority of criminal justice policies are designed, implemented, and assessed based largely on empirically measured data and advanced statistical approaches. This course thus aims to enhance students’ abilities in the understanding of social problems and phenomena related to crime and the criminal justice system in a more scientific and objective way, providing them with an adequate level of statistical knowledge for the advanced approach. In this course, we specifically discuss the following topics: units of analysis, levels of measurement, data visualization, measures of central tendency and dispersion, probability, population, sample, confidence intervals, and hypothesis testing, etc. Mathematical formulas and computations related to some of the topics above will be examined and discussed in this course as well.

LEARNING OBJECTIVES:
At the end of this course, students should be able to:
1. Understand and address the features of quantitative information in the field of criminology and criminal justice.
2. Understand the concepts of units of analysis and levels of measurement, and explain why those concepts should be considered for empirical research with statistical approaches.
3. Understand the concept of descriptive statistics, compute relevant measures of central tendency and dispersion, and address how we can present and interpret characteristics of data using those measures.
4. Understand the concept of inferential statistics, compute several types of probabilities as well as confidence intervals, and address how the concepts of probability distributions, confidence of intervals, and hypothesis testing are applied for inferential statistics.
REQUIRED TEXTBOOK:

GRADING POLICIES:
Your final grade will be based on the sum of the scores of your attendance and four exams. Note that your final grades are **NOT** negotiable unless I make an error in calculating your grades.

| Attendance: | 50 points |
| Exam 1: | 100 points |
| Exam 2: | 100 points |
| Final Exam: | 150 points |
| **Total:** | **400 points** |

A: 400-360 points  
B: 359.99-320 points  
C: 319.99-280 points  
D: 279.99-240 points  
F: below 239.99 points

ATTENDANCE:
Students are expected to attend all scheduled classes. Students who fail to attend the lecture more than **FIVE** times will receive an F unless they drop the course. Students are also encouraged to be on time and not to leave early. If you arrive after the lecture starts or leave early before the lecture is over, your attendance will not be recorded. Attendance credit will be given as following:

- Students who have no or one absence: 50 points  
- Students who have two absences: 45 points  
- Students who have three absences: 40 points  
- Students who have four absences: 35 point  
- Students who have five or more absences: 0 points / will receive an F.

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 me in advance of the excused absence and arrange to make up missed work or examinations. If students are unable to attend the lecture due to family emergency and medical issues, proper documentation that proves emergent
incidents stated above (e.g., doctor’s note, etc.) need to be submitted to avoid reduction of absence.

**EXAMS:**
There will be a total of three exams during the semester. The first two exams will cover two or three chapters, and will not be cumulative. The final exam will be cumulative, covering all the chapters discussed during the whole semester. All three exams will include multiple choice and true/false questions. Since all three exams include questions asking about not only statistical concepts but also its applications, which is mostly computations, students must bring their calculators for all exams. Calculator applications installed on smart-phones, tablets, and laptops are not permitted to use.

Students are strongly encouraged to arrive at the classroom on time for exams. Students more than 15 minutes late will NOT be allowed to take exams. Keep in mind that no make-up exams will be given to students except for a few emergent situations that can be proven by proper documentation (e.g., death of immediate family, admission to a hospital). Make-up exams will only include essay-type questions, which require students to describe their solutions using statistical concepts and computations.

**IMPORTANT NOTES:**
1. Students are expected to read assigned chapters prior to every class.
2. Students are encouraged to ask questions if you have anything unclear over the semester.
   Students can use the time after class or office hours. Students may also contact me via email. I will respond to students’ emails within 24 hours unless they are irrelevant to the course or written in a rude/aggressive manner.
3. Students are NOT allowed to use cell-phones during the lecture.
4. Recording lectures and taking pictures/videos in class are prohibited.
5. This syllabus is subject to change. If changes are necessary or desired during the course, I will immediately inform students of the change in class as well as via email.

**TENTATIVE COURSE SCHEDULE:**

<table>
<thead>
<tr>
<th>Date</th>
<th>Topic</th>
<th>Reading</th>
<th>Note</th>
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<tbody>
<tr>
<td>Aug 31</td>
<td>Overview of the course</td>
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<tr>
<td>Sep 7</td>
<td>Introduction of statistics in criminal justice and criminology</td>
<td>Ch.1</td>
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<td>Sep 14</td>
<td>Types of variables, levels of measurement</td>
<td>Ch.2</td>
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<tr>
<td>Date</td>
<td>Topic</td>
<td>Chapter(s)</td>
<td>Notes</td>
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<td>Sep 21</td>
<td>Data distributions and visualization</td>
<td>Ch.3</td>
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<td>Sep 28</td>
<td>Exam 1</td>
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<td>Covers Ch.1-Ch.3</td>
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<td>Oct 5</td>
<td>Measures of central tendency</td>
<td>Ch.4</td>
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<td>Oct 12</td>
<td>Measures of dispersion</td>
<td>Ch.5</td>
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<td>Oct 19</td>
<td>Probability</td>
<td>Ch.6</td>
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<td>Oct 26</td>
<td>Exam 2</td>
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<td>Covers Ch.4-Ch.6</td>
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<td>Nov 2</td>
<td>Population, Sample, Sampling Distribution</td>
<td>Ch.7</td>
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<td>Nov 9</td>
<td>Point estimates and confidence intervals</td>
<td>Ch.8</td>
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<td>Nov 16</td>
<td>No class – Conference</td>
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<td>Nov 23</td>
<td>No class – Thanksgiving</td>
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<td>Nov 30</td>
<td>Hypothesis testing: Introduction + Final Review / Q&amp;A session</td>
<td>Ch.9</td>
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<td>Dec 7</td>
<td>Final Exam</td>
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<td>Covers Ch.1-Ch.9</td>
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**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 suffer 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 Cortez Hall Room 129 and can be contacted by phone at (956) 882-7374 (Voice) or via email at ability@utrgv.edu.

Edinburg Campus: Student Accessibility Services is located in 108 University Center and can be contacted by phone at (956) 665-7005 (Voice), (956) 665-3840 (Fax), 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 on or about:

Module 1  October 4 – 10
Module 2  November 29 – December 5
Full Fall Semester  November 15 – December 5

SCHOLASTIC INTEGRITY:
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 (including self-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 HARASSMENT, DISCRIMINATION, AND VIOLENCE:
In accordance with UT System regulations, your instructor is a “Responsible Employee” for reporting purposes under Title IX regulations and so must report any instance, occurring during a student’s time in college, of sexual assault, stalking, dating violence, domestic violence, or 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 and discrimination.
COURSE DROPS:
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 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:

- Learning center: BSTUN 2.10 (Brownsville) or ELCTR 100 (Edinburg)
- Writing center: BLIBR 3.206 (Brownsville) or ESTAC 3.119 (Edinburg)
- Advising center: BMAIN 1.400 (Brownsville) or ESWKH 101 (Edinburg)
- Career center: BCRTZ 129 (Brownsville) or ESSBL 2.101 (Edinburg)