Statistics & Research Practices in Criminal Justice

The University of Texas at Arlington CRCJ 5310-001, Summer 2016 Monday & Wednesday, 6:00pm – 9:50pm Room: UTASF 120

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Office Hours: Monday & Wednesday 5:00pm – 6:00pm and by appointment

Course Description

This course will introduce the student to a range of statistical techniques used in social science disciplines such as criminology and criminal justice. Emphasis will be placed on interpretation of results and computer applications. Students will be instructed on learning the logic and calculations for various statistical techniques with the use of existing databases. The course also offers an introduction to computer applications with SPSS (Statistical Package for the Social Sciences).

Required Textbook

Agresti, Alan and Christine Franklin. 2013. *Statistics: The art and science of learning from data 3rd Ed.*). Boston, MA: Pearson Prentice Hall. ISBN: 9780321755940

Course Objectives

In this course, students will develop an understanding of how to compute and interpret the elementary social statistics often found in criminal justice research. Specific learning objectives for students include an understanding of: (a) the logic underlying the use of statistical analysis in criminal justice research, (b) the levels of measurement typically observed in criminal justice variables, (c) methods for summarizing descriptive information statistically and visually, (d) appropriate application of descriptors of central tendency and variability, (e) the logic underlying and basic application of several key inferential statistical tests, and (f) general literacy in understanding statistics encountered in everyday situations.

Course Requirements

Your grade will be determined based on your performance on four (4) quizzes, four (4) SPSS assignments, and classroom participation. Further details will be given about the quizzes, and assignments as the due dates approaches. The assignments will be completed **IN CLASS** using the statistical program SPSS. The quizzes will be completed online. There will be no make-up opportunities for unexcused absences.

Grading – Your final grade will be determined using the following rubric and grading scale:

| Percent of Total | <u>Item</u> |
|------------------|-------------------|
| 10 | Online Quiz 1 |
| 10 | Online Quiz 1 |
| 20 | Online Quiz 1 |
| 20 | Online Quiz 1 |
| 10 | SPSS Assignment 1 |
| 10 | SPSS Assignment 1 |
| 10 | SPSS Assignment 1 |
| 10 | SPSS Assignment 1 |

Grading Scale

| A | = | 90 and above |
|---|---|--------------|
| В | = | 80 - 89 |
| C | = | 70 - 79 |
| D | = | 60 - 69 |
| F | = | 59 and below |

Course Schedule and Assigned Readings

PART I: Thinking Like a Scientist: Theory-Methods-Stats Symmetry

Dates: 7/13

Topics: what are data and where do they come from (and why are they plural)?; levels of

measurement; hypothesis development

Readings: Chapter 1

PART II: Univariate Statistics

Dates: 7/18 & 7/20

Topics: measures of central tendency for quantitative and categorical variables; measures of

dispersion for quantitative and categorical variables; displaying data graphically

Readings: Chapter 2

Online Quiz 1: Completed at the end of the section

SPSS Assignment 1: Completed in class at the end of the section

PART III: Probability Theory

Dates: 7/25 & 7/27

Topics: random variables; probability theory; probability distributions; sampling

distributions; the normal distribution, the binomial distribution

Readings: Chapters 5, 6, and 7 Online Quiz 2: Completed at the end of the section

SPSS Assignment 2: Completed in class at the end of the section

PART IV: Statistical Inference

Dates: 8/1& 8/3

Topics: standard errors; confidence intervals; hypothesis testing *Readings*: Chapters 8 and 9

Online Quiz 3: Completed at the end of the section

SPSS Assignment 3: Completed in class at the end of the section

PART V: Bivariate Statistics

Dates: 8/8, 8/10, & 8/15

Topics: t-test, z-test, chi-squared, correlation

Readings: Chapters 3, 10, and 11

Online Quiz 4: Completed at the end of the section

SPSS Assignment 4: Completed in class at the end of the section

Note: This schedule is not a binding contract. I reserve the right to make changes at any time and it is your job to stay abreast of these changes.

Course Policies

Late Assignments – Students are expected to complete all graded elements by the deadlines provided. Those deadlines will be enforced. Students may NOT submit a late exam, or assignment unless they contact me with proper documentation prior to the deadline, or within 24 hours in the event of a serious emergency. Examples include documented personal or immediate-family emergencies in regards to health and well-being, documented military deployment, documented emergency services work, and documented university activities. Keep in mind that simply missing class (or not having internet access) does not delay deadlines.

Attendance - Attendance is required if you wish to receive a passing grade. If you miss a class it is strongly encouraged that you borrow one of your classmate's notes and then talk with me if you need additional clarification. *I do not provide students with my notes nor will I post notes/slides to the internet.* If you miss an exam or an assignment you must: (1) notify me within 24 hours AND (2) provide me with an acceptable excuse. Note that I may request written documentation. If you do not follow this procedure you will receive a zero on the assignment/examination.

Drop Policy – Students may drop or swap (adding and dropping a class concurrently) classes through self-service in MyMav from the beginning of the registration period through the late registration period. After the late registration period, students must see their academic advisor to drop a class or withdraw. Undeclared students must see an advisor in the University Advising Center. Drops can continue through a point two-thirds of the way through the term or session. It is the student's responsibility to officially withdraw if they do not plan to attend after registering. **Students will not be automatically dropped for non-attendance.** Repayment of certain types of financial aid administered through the University may be required as the result of dropping classes or withdrawing. For more information, contact the Office of Financial Aid and Scholarships (http://wweb.uta.edu/aao/fao/).

Academic Integrity – Students enrolled in this course are expected to adhere to the UT Arlington Honor Code:

I pledge, on my honor, to uphold UT Arlington's tradition of academic integrity, a tradition that values hard work and honest effort in the pursuit of academic excellence.

I promise that I will submit only work that I personally create or contribute to group collaborations, and I will appropriately reference any work from other sources. I will follow the highest standards of integrity and uphold the spirit of the Honor Code.

UT Arlington faculty members may employ the Honor Code as they see fit in their courses, including (but not limited to) having students acknowledge the honor code as part of an examination or requiring students to incorporate the honor code into any work submitted. Per UT System *Regents' Rule* 50101, §2.2, suspected violations of university's standards for academic integrity (including the Honor Code) will be referred to the Office of Student

Conduct. Violators will be disciplined in accordance with University policy, which may result in the student's suspension or expulsion from the University.

Student Support Services Available – UT Arlington provides a variety of resources and programs designed to help students develop academic skills, deal with personal situations, and better understand concepts and information related to their courses. Resources include tutoring, major-based learning centers, developmental education, advising and mentoring, personal counseling, and federally funded programs. For individualized referrals, students may visit the reception desk at University College (Ransom Hall), call the Maverick Resource Hotline at 817-272-6107, send a message to resources@uta.edu, or view the information at www.uta.edu/resources.

Electronic Communication – UT Arlington has adopted MavMail as its official means to communicate with students about important deadlines and events, as well as to transact university-related business regarding financial aid, tuition, grades, graduation, etc. All students are assigned a MavMail account and are responsible for checking the inbox regularly. There is no additional charge to students for using this account, which remains active even after graduation. Information about activating and using MavMail is available at http://www.uta.edu/oit/cs/email/mavmail.php.

Student Feedback Survey – At the end of each term, students enrolled in classes categorized as "lecture," "seminar," or "laboratory" shall be directed to complete an online Student Feedback Survey (SFS). Instructions on how to access the SFS for this course will be sent directly to each student through MavMail approximately 10 days before the end of the term. Each student's feedback enters the SFS database anonymously and is aggregated with that of other students enrolled in the course. UT Arlington's effort to solicit, gather, tabulate, and publish student feedback is required by state law; students are strongly urged to participate. For more information, visit http://www.uta.edu/sfs.

Final Review Week – A period of five class days prior to the first day of final examinations in the long sessions shall be designated as Final Review Week. The purpose of this week is to allow students sufficient time to prepare for final examinations. During this week, there shall be no scheduled activities such as required field trips or performances; and no instructor shall assign any themes, research problems or exercises of similar scope that have a completion date during or following this week *unless specified in the class syllabus*. During Final Review Week, an instructor shall not give any examinations constituting 10% or more of the final grade, except makeup tests and laboratory examinations. In addition, no instructor shall give any portion of the final examination during Final Review Week. During this week, classes are held as scheduled. In addition, instructors are not required to limit content to topics that have been previously covered; they may introduce new concepts as appropriate.

Americans with Disabilities Act – The University of Texas at Arlington is on record as being committed to both the spirit and letter of all federal equal opportunity legislation, including the *Americans with Disabilities Act (ADA)*. All instructors at UT Arlington are required by law to provide "reasonable accommodations" to students with disabilities, so as not to discriminate on the basis of that disability. Any student requiring an accommodation for this course must provide the instructor with official documentation in the form of a letter certified by the staff in the Office for Students with Disabilities, University Hall 102. Only those students who have officially documented a need for an accommodation will have their request honored. Information regarding diagnostic criteria and policies for obtaining disability-based academic accommodations can be found at www.uta.edu/disability or by calling the Office for Students with Disabilities at (817) 272-3364.

Emergency Exit Procedures – Should we experience an emergency event that requires us to vacate the building, students should exit the room and move toward the nearest exit. When exiting the building during an emergency, one should never take an elevator but should use the stairwells. Faculty members and instructional staff will assist students in selecting the safest route for evacuation and will make arrangements to assist handicapped individuals.

Librarian to Contact – John Dilliard is the Criminology and Criminal Justice Librarian. He can be reached at (817)272-7517 or dillard@uta.edu..