Quantitative Methods

Summer 2018 - 01:830:200 M, W, F 6:00 – 9:30 pm in SEC-205

Instructor: Yelda Semizer

E-mail: <u>yelda.semizer@rutgers.edu</u> (Please contact me by email *only* from your Rutgers University email address and allow for least **24-48 hours** for a response.) **Office Hours:** M 1 – 3 pm in Room 123, Psychology Building, Bush Campus

Course Description

This course provides you with an introduction to statistics in behavioral sciences. It involves some arithmetic and basic algebra. Topics covered in this course include graphical representations, basic probability, sampling distributions, confidence intervals, correlation, regression, and hypothesis testing methods.

Course Goals



This course has been certified as satisfying both Quantitative and Formal Reasoning Learning Outcome Goals (QQ and QR) of the SAS Core Curriculum.

The purpose of this course is to:

- 1. Provide key concepts and tools in descriptive and inferential statistics
- 2. Introduce the most common methods used in behavioral sciences
- 3. Explain how to interpret results of statistical analyses

Course Outcomes

After a successful completion of this course, you should be able to:

- 1. Understand and interpret how to use graphical representations
- 2. Understand and implement the most common methods used in behavioral sciences
- 3. Interpret the results of these statistical analysis
- 4. Make a decision based on the interpretation of these statistical analysis
- 5. Read, understand and critically evaluate statistical methods used in behavioral research

Course Materials

<u>Textbook:</u> Privitera, G. J. (2017). *Statistics for the Behavioral Sciences*. (**3rd Ed.**) Sage Publications. *ISBN*: 1506386253

You will need to bring this book to every class.

<u>Calculator</u>: You will need a simple calculator capable (at a minimum) of computing square roots. An inexpensive solar-powered scientific calculator would be preferable, since these allow the use of parentheses, have a dedicated squaring function, and are unlikely to run out of power in the middle of an exam. I recommend **the Texas Instruments TI-30X IIS**, which can be purchased online for under \$15. *Note:* Even if you have calculator functions on your smartphone or computer, you will need this calculator for exams. You will not be permitted to use phones or laptops during the exams.

Access to a PC: You will need internet access to view course materials on the Sakai site.

Course Requirements

<u>Exams</u>: There will be one midterm and one final exam, both time-limited. Exams will consist of two parts: a conceptual part and a computational part. For the computational portion of the exam, you can bring one standard letter-sized (8.5×11 in) sheet of paper with any formulas or notes on it. In order to receive any credit on the computational part of the exams, you must show your work. Only calculators are permitted, no other electronic devices may be used during exams. The midterm (35%) and final (40%) exams will together make up 75% of your grade.

Note: Make-up exams are allowed only if provided with appropriate documentation (e.g., a doctor's note, a police report, etc.) <u>at least one-week prior</u> to the scheduled exam date, except in case of an unforeseeable emergency. Make-up exam will not be given if these criteria are not satisfied.

<u>Assignments:</u> There will be several homework assignments during the semester. The assignments will make up 20% of your course grade. Each problem will be worth two points: one point for a good faith effort at completion, and one point for correctness of the answer. <u>No late homework assignments will be accepted</u>. As with the exams, to receive any credit on computational questions, you must show your work.

<u>Attendance:</u> You are expected to attend all classes. Attendance will make up 5% of your grade. Absences are excused only if provided with appropriate documentation (e.g., a doctor's note, a police report, etc.).

Extra Credit: The midterm and final exams will include extra credit questions. There are no other extra credit options available.

Course Policies

<u>Academic Integrity:</u> Rutgers University's Academic Integrity policy states, among other things, that "every Rutgers University student...make sure that all work submitted as his or her own in a course or other academic activity is produced without the aid of unsanctioned materials or unsanctioned collaboration." If there is reason to believe that someone else is doing the work for you, this will be investigated in accordance with the university's procedures and policies.

Please check the school guidelines for further clarification of violations. <u>http://academicintegrity.rutgers.edu/</u>

Take a 20-minute interactive-tutorial on Plagiarism and Academic Integrity, <u>http://www.scc.rutgers.edu/douglass/sal/plagiarism/intro.html</u>

<u>Academic Accommodations:</u> If you require academic accommodations, you must file a request with the Office of Disability Services for Students (<u>https://ods.rutgers.edu/my-accommodations</u>). You should file your request as soon as possible. Retroactive accommodations are not allowed.

If you decide to stay enrolled in this class after receiving this syllabus, I will assume that you have read the entire syllabus and have agreed to all the policies outlined.