Syllabus for STAT 310: Statistics for Social Sciences
Spring 2021

Instructor: Dr. Eric Fox
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Lecture: Tu/Th 3:15-4:55 over Zoom

Office Hours: Tu/Th 1-2PM and Wed 2-4PM, or by appointment
Zoom link: `https://csueb.zoom.us/j/502694714`

Website: Course materials will be posted on Blackboard.

Textbook: Diez, D., Barr, C. and Cetinkaya-Rundel M. *OpenIntro Statistics*, 4th Edition, 2019. [Free PDF: `https://www.openintro.org/stat/textbook.php`]

Software:
R, can be downloaded here `https://www.r-project.org/`
RStudio, can be downloaded here `https://www.rstudio.com/`

Course Topics: This course will provide an introduction to statistics with a focus on applications to social sciences. Topics include exploratory data analysis, statistical inference, and linear regression. Computer labs will provide training in the use of the statistical programming language R.

- Data collection: sampling designs and experimental studies
- Descriptive statistics and data visualization
- Normal distribution
- Sampling distributions
- Confidence intervals
- Hypothesis testing
- Linear regression and correlation

Grading:

- 10% Homework
- 15% Computer Labs
- 75% Three Exams (take-home, 25% each)

Policy on Late Assignments and Exams: Late homework will generally not be accepted. However, your lowest scoring homework and lab assignment will be dropped. I may agree to extensions on due dates if you are experiencing an emergency or illness.

Student Learning Outcomes: Upon successful completion of this course, students should be able to:

- Apply statistical methodologies, including (a) summary statistics and graphical displays, (b) hypothesis testing and confidence intervals, and (c) linear regression and correlation.
- Understand basic theory underlying these methodologies.
- Use R and RStudio to analyze data sets and implement statistical methods.
- Communicate statistical concepts clearly and appropriately to others.

Technology Requirements: This course will use the web conferencing software Zoom. To participate you will need a stable internet connection, and a laptop or desktop computer equipped with a webcam, microphone, and speakers. Please refer to the Zoom system requirements here.

Course Policies and Zoom Etiquette:

- All lectures will be delivered live during the scheduled class time, and attendance is highly recommended. Recordings of the sessions will be posted on Blackboard for students that cannot attend or have connectivity issues.
- Make sure that your audio is muted upon entry into the class.
- You may ask questions by using the chat function or by unmuting yourself. Please try to not disrupt the instructor or other students.

Common Syllabus Items: Items such as policies on academic dishonesty, disability, and handling emergency situations can be found under "University Policies" on Blackboard.