Course Syllabus for DS 705: Statistical Methods

NOTE: This syllabus document contains the basic information of this course. The most current syllabus is available in the full course.**.**

Course Description

Statistical methods and inference procedures will be presented in this course with an emphasis on applications, computer implementation, and interpretation of results. Topics include simple, multiple, and logistic regressions, model selection, one-sample, paired sample, and two-sample t-tests.

Course Objectives

By the end of this course, you will be able to:

- Analyze data and questions to determine appropriate statistical procedures.

- Implement numerous statistical procedures using software and interpret the output.

- Quickly write reports combining plots and numerical summaries to communicate results.

Course Components

- Weekly homework assignments will be completed by conducting analyses in R/RStudio and answering auto-graded quiz questions on Canvas. There are 11 of these weekly homework assignments, each worth 30 points.

- There are three projects that are worth 100 points each. Project subtasks will be assigned and submitted in the weeks prior to the final, complete project submission. Instructor feedback will be provided after each of these steps. Roughly half of the points for each project submission are for technical correctness, while the other half are for clear, effective communication with complete sentences, correct grammar, and correct spelling.

Grading Policy

Your mastery of course content is assessed using the following methods:

Activity	Points
Homework (11)	330 points
Project (3)	300 points
Total	630 points

Final grades are assigned using the following scale:

A 90-100%

B 80-89%

C 70-79%

D 60-69%

F At or below 59%