

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 regression, model selection, one-sample, paired sample, and two-sample t-tests and nonparametric alternatives including bootstrapping, chi-square tests, ANOVA, Kruskal-Wallis test, multiple comparisons, Dimension Reduction, and Exploratory Factor Analysis.

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.

Grading Policy

Your mastery of course content is assessed using a variety of methods:

Activity	Possible Points
Homework (11)	330 points
Project (2)	150 points
Final Exam	170 points
Total	650 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%