STA W4291/5291 Advanced Data Analysis
Spring 2018
F 10:10am-12:40pm

Professor: Hammou Elbarmi

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Office hours: Fridays 1-2pm and by appointment

Teaching Assistants: To be announced

Office hours of the TAs: TO BE ANNAOUNCED.

Course Description: This course reviews and expands upon core topics in statistics through the study and practice of data analysis. It will be computationally intensive and we will use the R and or SAS languages and environments for statistical computing and graphics. I will assume that you had regression. The material that will be covered include: basic statistical procedures (including nonparametric procedures), linear regression, design of experiments, categorical data, survival analysis and multivariate analysis. Because of the nature of the course, I will use several books and they include

- The Statistical Sleuth: A Course in Methods of Data Analysis: Ramsey and Schafer, Duxbury
- Applied Linear Statistical Models: Kutner, Nachtsheim, Neter and Li (5th Edition), MaGraw Hill
- Methods of Multivariate Analysis, 2nd Edition, Alvin C. Rencher
- Categorical Data Analysis, 2nd Edition, Alain Agresti, Wiley
- The Statistical Analysis of Failure Time Data, 2nd Edition, J. D. Kalbfleisch and Ross L. Prentice, Wiley

Grading: Your final grade will be based on an in class exam, take home assignments (HWs) and a project. The homework will be assigned approximately every week and will collected a week later. Late assignments will not be accepted and they will result automatically in a zero. HWs submitted by email will NOT be graded and the lowest score on the homework assignments will be dropped. The exam will count for 40% of your final score and the HW will count for 30%. The project will count for the remaining 30%.

Exam Date: TBA

Academic honesty: Academic dishonesty is unacceptable and will not be tolerated. Cheat- ing, forgery, plagiarism and collusion in dishonest acts undermine Columbia's educational mission and the students' personal and intellectual growth. Columbia students are expected to bear individual responsibility for their work, to learn the rules and definitions that underlie the practice of academic integrity, and to uphold its ideals. Ignorance of the rules is not an acceptable excuse for disobeying them. Any student who attempts to compromise or devalue the academic process will be sanctioned.