

Probability and Statistical Inference for Econ

Meeting Time and Locations: BLDG 73, Room 107, T,H/9:00AM - 12:00 PM

Instructor: Zhi Li, **Email:** zachlizhi@gmail.com, **Phone:** 801-824-5537

Office Hour: I will be at the graduate student working area in BLDG 72 every Tuesday afternoon from 2:00PM to 5:00PM. If you want to meet at other time, please contact me and set an appointment in advance.

Course Description: This course will introduce basic knowledge for probability and statistical inference. The main topic includes probability theory, techniques on describing data, data analysis, and application of statistical inference based on samples.

Prerequisites: College Algebra, Econ 2010 and 2020

Textbook: *The Practice of Statistics for Business and Economics*, by Moore et. al, 4th Edition, Publisher: W. H. Freeman

Course Objectives:

After learning this course, students should become familiar with basic statistical knowledge and the application of the software R. Also, they can use the knowledge to collect, summarize, analyze the data set, and present those things to normal audience. What's more, articles in academic journals and magazines like *Economists* will not be too hard to understand. This course will also provide required knowledge for further study of higher level statistical theory.

Assignment and Exam

All the assignments will be posted on the Canvas page for this course. Majority of the assignments will require student to use R software to answer the question. Students should include the R code and the result in a **pdf** document and upload the document through Canvas for the assignment. There will be only **one take-home exam** at the end of the class.

Course Grade Evaluation componetns:

1. Assignments will take 60% of the total grade.
2. The final take-home exam will take 20% of the total grade.
3. Students are required to show up, and participation will take 10% of the total grade.
4. Students should take an active role in the class, and this will take 10% of teh total grade.

Planned Time Table

6/22 Introduction to R/Chapter One

6/27 Chapter One

6/29 Chapter Two (excluding linear regression part)/Chapter Three

7/4 no class, Independence Day holiday

7/6 Chapter Four

7/11 Chapter Four/Chapter Five

7/13 Chapter Six

7/18 Chapter Six/Chapter Seven

7/20 Chapter Seven/Chapter Eight

7/25 Chapter Eight/Chapter Ten

7/27 Chapter Eleven

8/2 Review the class. Discussion about assignments and other questions about the class