This course will introduce contemporary methods for empirical studies, demonstrate how to apply those methods to data, and interpret the derived results. Topics will cover linear regression models and logistic regression models. A free statistical software, R, will be used to demonstrate some empirical cases during the lecture.

This course serves as a stepping stone for those interested in knowing the field more intimately and perhaps going on advanced study in Econometrics.

Week 1 Course Overview
Week 2 Simple Regression Model
Week 3 Least Square Estimator
Week 4 Gauss–Markov Theorem
Week 5 Multiple Regression Models
Week 6 Qualitative Predictors and Collinearity
Week 7 Heteroskedasticity
Week 8 Data Specifications
Week 9 Multinom
Week 10 Classifications
Week 11 Logistic Function and Logistic Regression Models
Week 12 Multinomial Logistic Regression Model
Week 13 Ordinal Logistic Regression Model
Week 14 Spatial Data
Week 15 Visualization of Spatial Data
Week 16 Final Exam

Grades are based on total points by 40% for two assignments (20% for each) 55% for the exams (25% for midterm and 30% for the final) 5% for the attendance

2. "The Elements of Statistical Learning: Data Mining, Inference, and Prediction" Hastie, Tibshirani and Friedman
3. "An introduction to Statistical Learning – with Application in R" James, Witten, Hastie, and Tibshirani

https://sites.google.com/site/hongweichuang/home
Office Hours: Fridays 13:30-15:00 or by appointment