Economics 7828 Spring 2020

Prof. Xiaodong Liu

Tentative Course Outline:

1. Linear Regression Models
    a. Specification of regression models
    b. Method of moments estimation
    c. Geometry of vector spaces and OLS
    d. The Frisch-Waugh-Lovell Theorem
    e. Influential observations
2. Statistical Properties of Ordinary Least Squares
    a. Unbiasedness
    b. Consistency, asymptotic normality and efficiency
    c. Residuals and error terms
    d. Misspecification
    e. Goodness of fit
3. Hypothesis Testing and Confidence Intervals
    a. Exact tests in the classical linear model
    b. Large sample tests
    c. Exact and asymptotic confidence intervals and confidence regions
    d. Heteroskedasticity