

# Syllabus

## 1. The Linear Regression Model and the Analysis of Cross-section Data

- 1.1. Causality vs. Correlation
- 1.2. Review of the LRM and OLS estimation
- 1.3. Endogeneity, Instrumental Variables, and GMM

**Applications:** Hedonic price equations; labor supply models; returns to schooling

## 2. Linear Panel Data Models

- 2.1. Repeated Cross-Section Data and Policy Evaluation
- 2.2. Fixed and Random Effects models
- 2.3. Dynamic linear panel models

**Applications:** Wage and labor demand equations; household savings; treatment effects estimation

## 3. Binary Choice Models

- 3.1. Maximum Likelihood Estimation
- 3.2. Binary Logit and Probit models
- 3.3. Multinomial and Conditional Logit models
- 3.4. Ordered Logit and Probit models

**Applications:** Labor force participation; schooling decisions; travel mode choice

## 4. Limited-Dependent Variable Models

- 4.1. Tobit models
- 4.2. Selection models
- 4.3. Treatment Effects Estimation
- 4.4. Duration models

**Applications:** household savings; demand for health care; duration of unemployment