

# Econometrics 281

**Instructor**

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Office hour: Fr, 2:30pm-4:00pm

**Course Information**

Location: ECON 300

Time: Tu/Thu, 9:30am-10:50am

## 1 Course outline

The following is a tentative outline of the course.

1. Introduction and basic setup
2. Short introduction to empirical process theory
3. Conditional distributional treatment effects
  - Quantile regression
  - Distribution regression
4. Unconditional distributional treatment effects and counterfactual distributions
  - Reweighting
  - RIF regressions
  - Counterfactual distributions and distributional decompositions
5. Quantile models with endogeneity
  - Local quantile treatment effects
  - Instrumental variable quantile regression
  - Relationship between both approaches
6. Extensions (time-permitting)
  - Quantile crossing
  - Inference for quantiles with discrete distributions
  - Difference-in-differences methods
  - Sample selection
  - Censoring
  - Panel data

## 2 Evaluation

Your grade will be determined based on (1) a reading report for a recent econometric theory paper and (2) a presentation of the reading report. You should work in groups of two (both students will get the same grade).

1. Reading report: the report should contain the following elements:
  - Short description of the paper with a focus on its contribution
  - Detailed and formal yet intuitive discussion of the main result (and its proof).
  - Critical assessment of the paper focussing on strengths and weaknesses.

Format: no more more than 6 pages (12pt font).

2. Presentation: you will present the reading report in front of the class and myself. The timing of the presentation is to be determined as a function of the number of students enrolled in the course.

## 3 Course material

The course material will be available online via TritonEd.

## 4 References and Textbook

The course material is self-contained and no textbooks are required. All the referenced papers should be available via [scholar.google.com](https://scholar.google.com) when using UCSD WLAN. Please let me know if you cannot find a paper and I will send you a copy.

## 5 Preexisting knowledge

This course heavily builds on Econometrics 220A–220E.