## Syllabus for Econ120CH

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Prerequisites: Econ120A, B and math 20F: Linear Algebra.

**Course Objective:** The course will cover some chapters in the required textbook. It will introduce students to the main methods that are widely used for causal inference. At the end of the course, students will be able to choose appropriate empirical methods to address practical questions in both the public and private sectors.

**Intended Audience:** The intended audiences of the course are students who are willing to commit themselves to deeper understanding of econometrics, especially causal inference. The course is not for students who just want to have one more honor course on their transcripts. This class is especially recommended for students who are planning for graduate school.

## **Required Textbook:**

Mastering 'Metrics by Angrist and Pischke. Princeton University Press, 2015.

**Teaching and learning methods:** The course will consist of lectures, students' individual studying of the required book, and students' presentation.

## **Possible topics (Depending on students' interest)**

- 1. Randomized trials
- 2. Regression
- 3. Instrumental Variables
- 4. Regression Discontinuity
- 5. Differences-in-Differences

## Grading:

For those who are concurrently enrolled in Econ120C, grading will be based on the following:

- 1. (20%) class presentation: each student is required to read and present one of the main research papers referenced in the book.
- 2. (20%) homework.
- 3. (30%) final exam.
- 4. (30%) your grade in Econ120C for whose are concurrently enrolled in Econ120C.

For those who took Econ120C in a previous quarter, grading will be based on the following:

- 1. (30%) class presentation: each student is required to read and present one of the main research papers referenced in the book.
- 2. (30%) homework.
- 3. (40%) final exam.