Design & Analysis of Quasi-Experiments for Causal Inference
ED PSYCH 963-001 – Fall 2025
Tentative Schedule & Readings

Explanation of Readings

- **Primary** readings cover the core content of the topic.
- **Alternative** readings cover most of the same material as the primary reading on the same topic, but usually at a simpler level of statistical detail.
- **Recommended** readings provide further important details on the topic, or are very well-conducted studies that add new insights to the topic.
- **Further** readings cover more technical or specialized content, in case you are interested in delving in beyond what is covered in class.

Key to Abbreviations

- **CIWI:** Hernán & Robins (2020). *Causal Inference: What If*. Boca Raton: Chapman & Hall/CRC. Available at https://www.hsph.harvard.edu/miguel-hernan/causal-inference-book/
- **MIX:** Cunningham (2019). *Causal Inference: The Mixtape*. Available at https://www.scunning.com/mixtape.html
- **FIELD**: Gerber & Green (2012). *Field Experiments: Design, Analysis, and Interpretation*. W. W. Norton.

Tentative Schedule

2025-09-04 – Course introduction

- Primary: CIWI, chapter 1
- Primary: Kim & Steiner (2016)
- Further: Holland (1986), Rubin (1986)

2025-09-09 – Simple randomized experiments

- Primary: CIWI, chapter 2
- Recommended: FIELD chapters 2-3

2025-09-11 – Block-randomized experiments

- Primary: FIELD chapters 2-3
- Further: Raudenbush & Bloom (2015), sections 1 and 2 (pp. 475-485)

2025-09-16 – Balance assessment and covariate adjustment

- Primary: FIELD, chapter 4
- Further: Hansen & Bowers (2008)

2025-09-18 – More on covariate adjustment

- Primary: FIELD, chapter 4

2025-09-23 – Observational studies and confounding

- Primary: CIWI, chapter 3
- Recommended: Pearl, Glymour, & Jewell (2016), chapters 1-3.

2025-09-25 – Identification with directed acyclic graphs

- Primary: Feng (2024)
- Recommended: CIWI, chapters 6-7

2025-09-30 – DAGS (continued)

- Recommended: Elwert (2013)

2025-10-02 – Regression analysis

- Primary: Schafer & Kang (2008)

2025-10-07 – Regression analysis (continued)

- Primary: Ho, King, Imai, & Stuart (2007)
- Further: Aronow & Samii (2016)

2025-10-09 – Regression analysis (continued)

- TBD

2025-10-14 – Multivariate matching using propensity scores

- Primary: CIWI, chapter 15
- Further: Rosenbaum & Rubin (1983)

2025-10-16 – Matching

- Primary: Greifer & Stuart (2021)
- Recommended: Ho, King, Imai, & Stuart (2007)
- Further: Stuart (2010)

2025-10-21 – Weighting

- Primary: CIWI, chapters 12 & 18
- Further: Li & Li (2021)

2025-10-23 – More on weighting

- Recommended: Kush et al. (2023)
- Recommended: Hirano & Imbens (2001)

2025-10-28 – Innovations in propensity score methods

- Further: Zhao (2019)

2025-10-30 – Innovations in propensity score methods

- Primary: Lopez & Gutman (2017)

2025-11-04 – Difference-in-differences

- Primary: MIX, chapter 9
- Recommended: Angrist & Pischke (2009), chapter 5

2025-11-06 – Comparative interrupted time series

- Primary: Hallberg, Williams, & Swanlund (2020)

2025-11-11 – Instrumental variables

- Primary: Fiala et al. (2022)
- Primary: CIWI, chapter 16

2025-11-13 – Instrumental variables (continued)

- Recommended: Angrist, Imbens, & Rubin (1996)

2025-11-18 – Regression discontinuity designs

- Primary: Skovron & Titiunik (2015)
- Further: Bloom (2012)

2025-11-20 – RDD (continued)

- Further: Cattaneo, Idrobo, & Titiunik (2017), parts I and II

2025-11-25 – RDD (continued)

- To be determined

2025-11-27 – Thanksgiving Day – NO CLASS MEETING

2025-12-02 – Student presentations

- To be determined

2025-12-04 – Student presentations

- To be determined

2025-12-09 – Course wrap-up

- To be determined