

Module 0: Formalities

Econometrics II

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Semester Plan

Assessment Criteria

Textbooks

Statistical Software

Content Plan

Date	Time	Location	Topics
Thu, 16 October	14:30–16:30	TC.4.15	Module 1: Statistical Learning and the Role of Econometrics
Thu, 23 October	14:30–16:30	TC.4.15	Module 2: Causality
Thu, 30 October	14:30–16:30	TC.3.12	Module 2: Causality (Directed Acyclic Graphs)
Thu, 6 November	14:30–16:30	TC.3.12	Module 3: Threats to Causal Identification
Thu, 13 November	14:30–16:30	TC.3.12	Module 3: Threats to Causal Identification
Thu, 20 November	14:30–16:30	TC.4.15	First Partial Exam (30%)
<i>Break</i>			
Thu, 4 December	14:30–16:30	TC.3.12	Module 4: Instrumental Variables
Thu, 11 December	14:30–16:30	TC.4.13	Module 4: Instrumental Variables
Thu, 18 December	14:30–16:30	TC.3.12	Moduel 5: Non-Linear Models
<i>Christmas Break</i>			
Thu, 8 January	14:30–16:30	TC.4.13	Module 5: Maximum Likelihood
Thu, 15 January	14:30–16:30	TC.3.12	Module 6: More Identification Strategies
Thu, 22 January	14:30–16:30	TC.3.12	Second Partial Exam (30%)

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Components

- **First Partial Exam**
 - 30%, Modules 1–3
- **Second Partial Exam**
 - 30%, Module 4–6 (Modules 1–3 can appear as base knowledge)
- **Project**
 - 30%
 - To be conducted alone or in pairs
 - **Goal:** Deepen knowledge by applying course content
 - Can serve as inspiration for the bachelor thesis
- **Active Participation**
 - 10%, to get full points you must actively participate in at least 5 lectures.
 - **Attendance ≠ Participation**
- **Bonus**
 - Forecasting competition on kaggle

Forecasting Competition

Econometrics is also useful for **prediction**.

- You can learn a lot about prediction via trial-and-error.
- To facilitate that, there will be a **voluntary** forecast competition on **Kaggle**.

You can find the rules on Kaggle. You can join the competition via this link¹: • [Open Kaggle](#)

We will award **bonus points** on **two deadlines**. Bonus points are cumulative, so you can earn a maximum of 5 bonus points.

First round (4/12/2025)

2 pts for places 1–3

1 pt for places 4–10

Second round (15/01/2026)

3 pts for 1st

2 pts for 2nd

1 pt for places 3–5

(1)

If the link does not work, go to <https://www.kaggle.com/t/deef5fc9366f40f5b5f2deed1414a37a>

Grading Scheme

- The components are **weighted** as outlined above. The final grade is then determined by the following scale:

Grade		from	to
1	Excellent	87.5 %	
2	Good	75.0 %	< 87.5 %
3	Satisfactory	62.5 %	< 75.0 %
4	Sufficient	50.0 %	< 62.5 %
5	Fail		< 50.0 %

- No rounding** is applied.

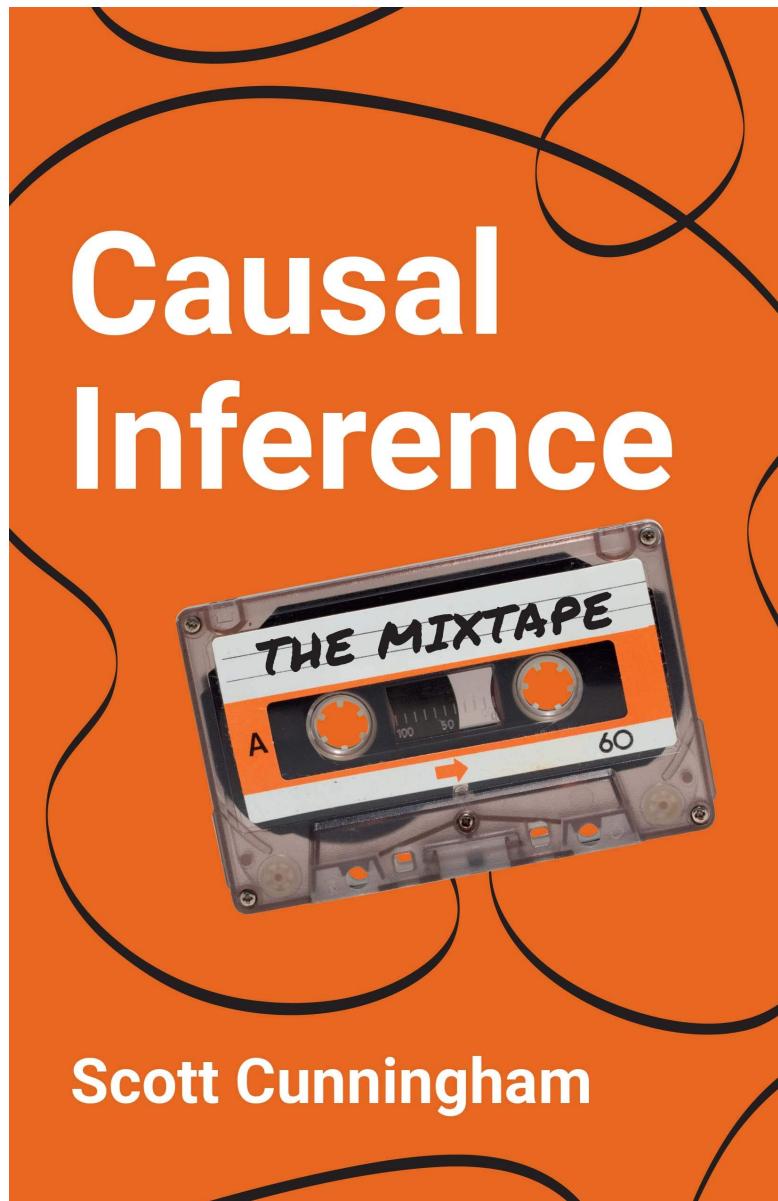
Semester Plan

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Cunningham (2021): Causal Inference. The Mixtape



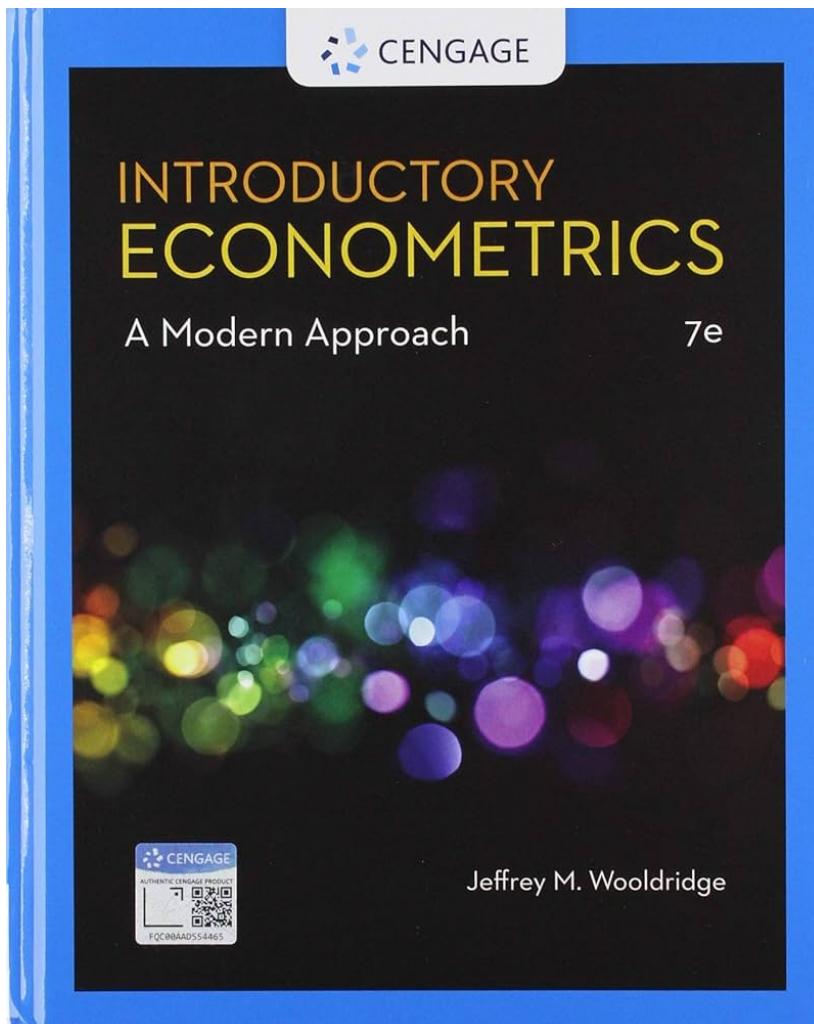
Type of Literature

- Available in print and online
- Supplementary reading for most topics

Availability

- Freely available at mixtape.scunning.com
- Only one copy at the library, usually not available

Wooldridge (2020): Introductory Econometrics



Type of Literature

- Good for Review of econometrics I

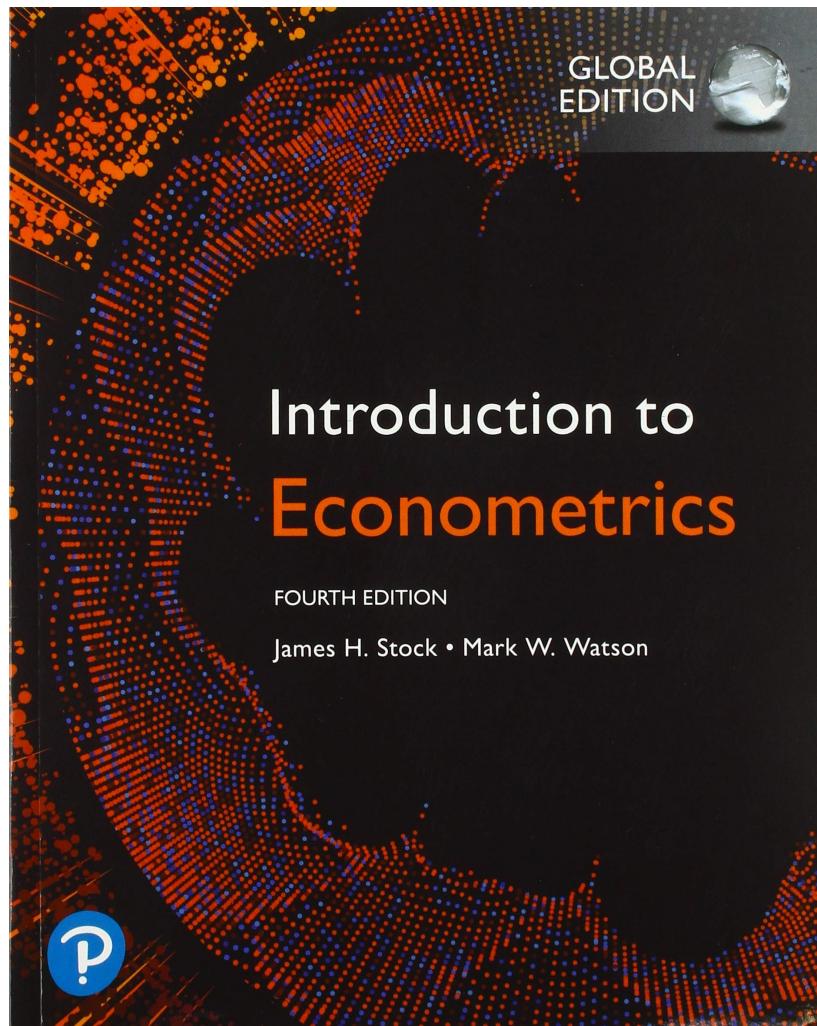
Availability

- Available at the WU library, PDFs of older editions can be found online

Edition

- We use the 7th edition, but older editions can also be used (mostly differ in page numbers, etc.)

Stock & Watson (2019): Introduction to Econometrics



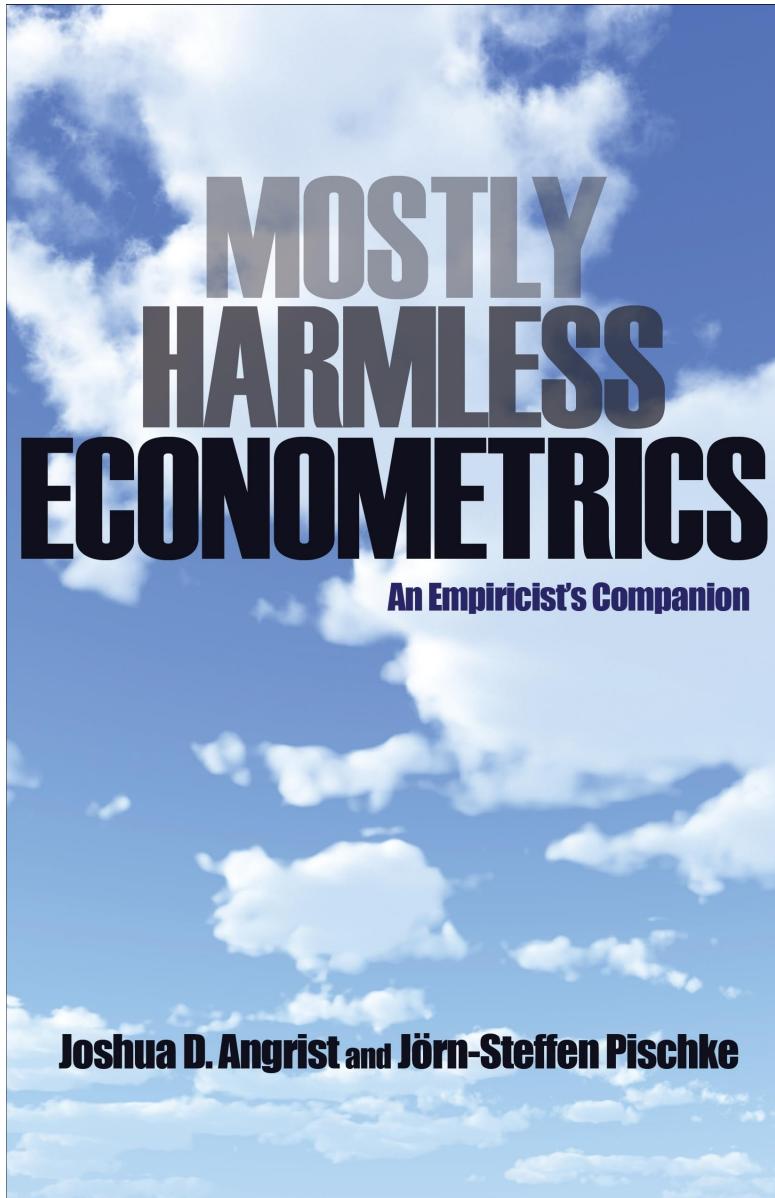
Type of Literature

- Supplementary textbook

Availability

- Online access via WU library catalog

Angrist & Pischke (2008): Mostly Harmless Econometrics



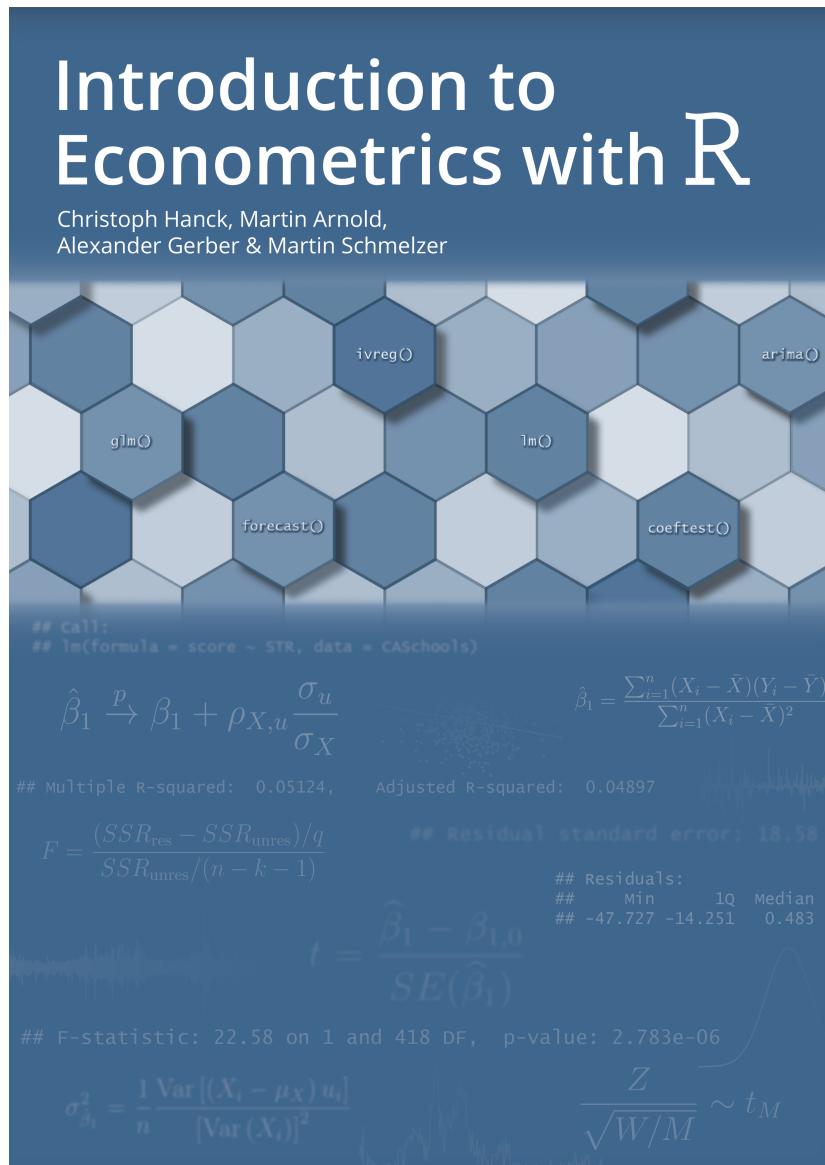
Type of Literature

- Supplementary literature on advanced topics

Availability

- Available at the WU library

Hanck et al. (2024): Intro to Econometrics with R



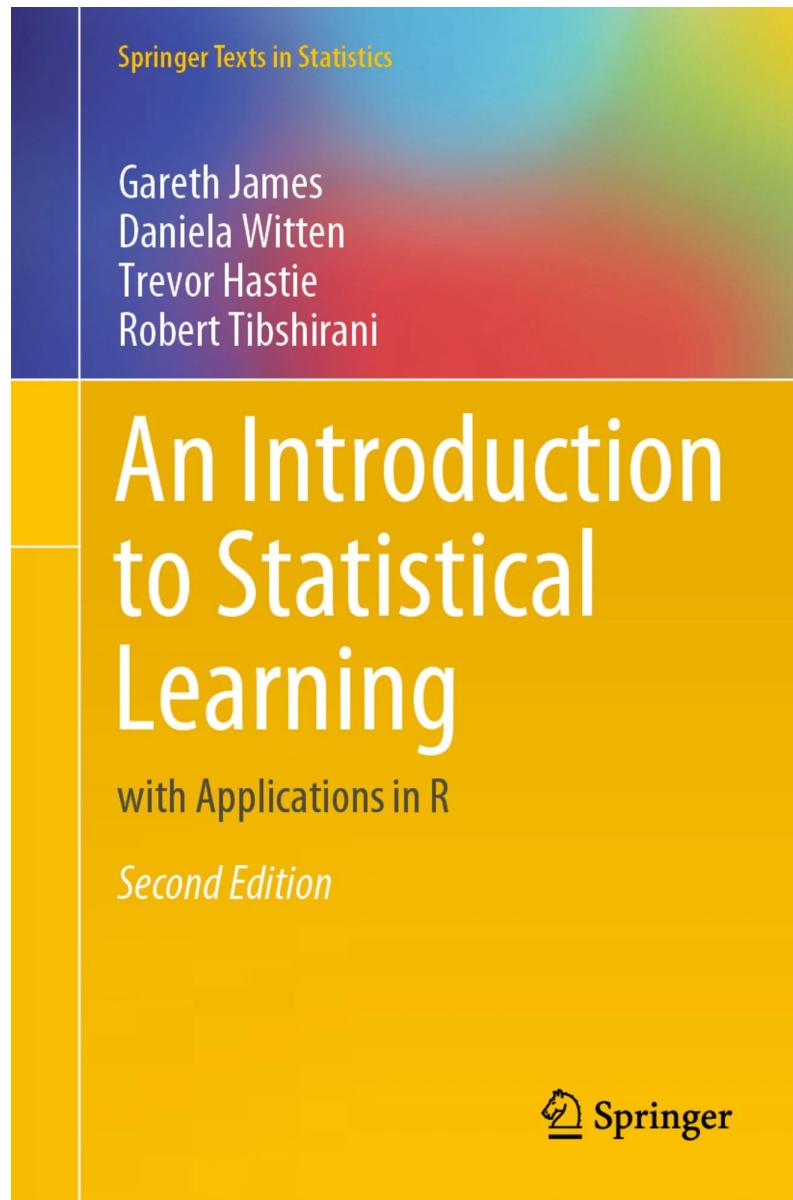
Type of Literature

- Online textbook
- Useful supplementary material especially for working with R

Availability

- Freely available at econometrics-with-r.org

James et al. (2021): An Introduction to Statistical Learning



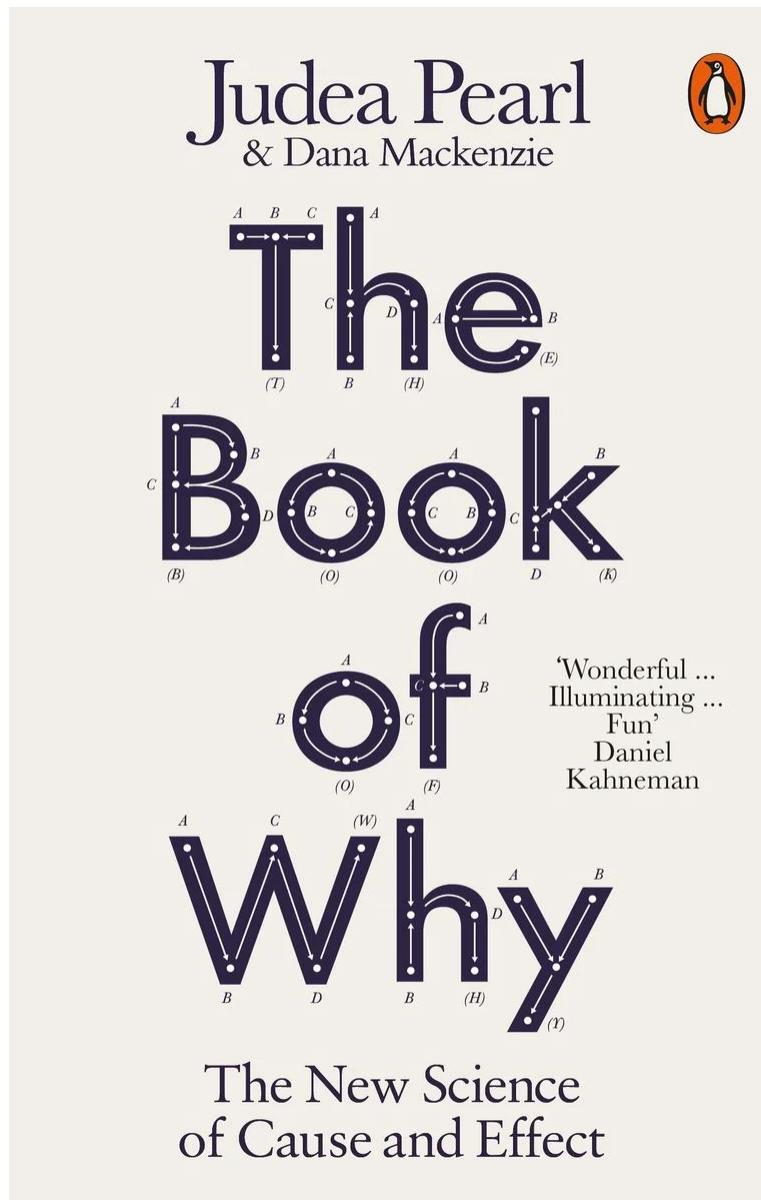
Type of Literature

- Textbook
- Used as base for some of Module 1

Availability

- Available at the WU Library

James et al. (2021): An Introduction to Statistical Learning



Type of Literature

- Textbook
- Background reading material for Module 2

Availability

- Available at the WU Library

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Statistical Software

R, Stata, Python

- The focus of this course is on **identification strategies**, which we will need to **apply** using real data.
- You might also work with data in the **project**.
- You are generally free to choose which **software** you use to complete the tasks (results should be more or less the same):
 - **R** is widely used, open source, and free. Code examples in this course are provided in R.
 - **Stata** is proprietary but preferred by some economists.
 - **Python**
 - **Eviews**
 - **Julia**
 - **Microsoft Excel** (just don't)

