

# Econometrics of Human Capital

Philipp Eisenhauer

Human capital is defined as:

*The knowledge, skills, competencies and attributes embodied in individuals that facilitate the creation of personal, social and economic well-being.*

- OECD (2001)

Figure: Foundational work

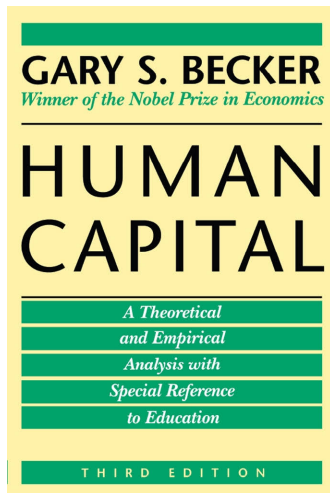


Table: Lecture plan

Date	Topic
11/10/18	Introduction to the econometrics of policy evaluation
18/10/18	Generalized Roy model
25/10/18	Parameters of interest
08/11/18	Estimation methods
15/11/18	<b>grmpy</b> Tutorial
22/11/18	Monte-Carlo explorations

## **Contributors**


- ▶ Philipp Eisenhauer
- ▶ Benedikt Kauf
- ▶ Valerie Stottuth

## Course Website

You find all information about the course on our website.

[https://github.com/HumanCapitalAnalysis/  
econometrics](https://github.com/HumanCapitalAnalysis/econometrics)

This includes the lecture dates, topics, reading list, and the slides.

If you have further questions, please feel free to contact us using  slack.

## **Course Website**

The slides will be continuously updated, so please make sure you have their most recent versions.

## Student contributions

You are expected to contribute a presentation and submit a manuscript summarizing and evaluating one research article in light of the conceptual framework presented in class. The research question needs to be related to human capital broadly speaking.

- ▶ **Presentation**, 20 minutes, followed by 10 minutes discussion
- ▶ **Manuscript**, 10 pages, top journal article



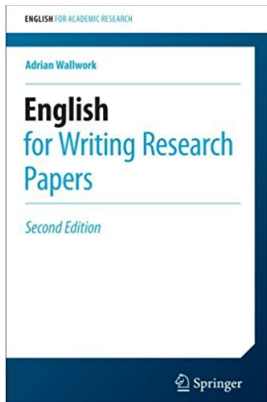
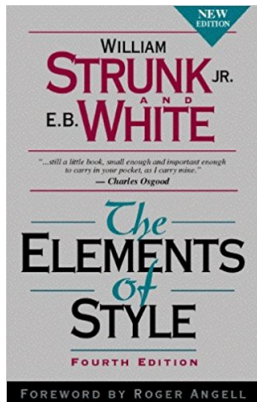
## **Adminstration**

To propose a paper and sign up for the presentations, please send a message to the Valerie.

[vstottuth@gmail.com](mailto:vstottuth@gmail.com)

She has kindly agreed to keep the course website up-to-date.

Figure: Book Recommendations



## Figure: Book Recommendations




## Open Source Economics

- ▶ **respy**, an open-source package for the simulation and estimation of a canonical model of human capital investment
- ▶ **grmpy**, an open-source package for the simulation and estimation of the generalized Roy model
- ▶ **NLSY Dataset**, groomed version of the National Longitudinal Survey of Youth (1979) for life-cycle histories of a variety of economic choices

## Open Source Economics

You find additional information on our website.

<https://github.com/OpenSourceEconomics>

If you are interested to contribute, be sure to let us know using  slack.

## **Related courses**

We offer several other courses on the material presented here.

<https://github.com/HumanCapitalAnalysis>

- ▶ Economics of human capital
- ▶ Research seminar

## **Philipp Eisenhauer**

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Repository   <https://github.com/peisenha>

Life-Cycle Models   Educational Choice   Investment  
Structural Microeconometrics   Psychic Costs   Option Values  
Educational Choice   True Returns  
Uncertainty   Administrative Datasets

# Human Capital Analysis

## Economics, Data, Computation

Decision Theory   Robust Optimization  
Robustness   Numerical Methods   Markov Decision Process  
Uncertainty   Operations Research  
respy   Software Engineering   grmpy



## **Related issues**

- ▶ Thesis projects
- ▶ Reference letters

# **Appendix**

# *References*

Becker, G. S. (1964). *Human capital* (1st ed.). New York City, NY: Columbia University Press.

OECD. (2001). *The well-being of nations: The role of human and social capital*. Paris, France: OECD Publication Service.