# Course Description Proposal: Econ 350, Life Cycle Dynamics: The Origins & Consequences of Inequality in Capabilities

This Draft: December 13, 2013

#### Abstract

This course analyzes the origins and consequences of inequality in a life-cycle perspective. It uses economic models and statistical frameworks to study nine sub-topics that lead to a better understanding of a series of facts about the development of current socio-economic inequality, as described in Topic 1. In fact, the goal is to have, at the end of the course, a deeper understanding of this phenomenon based on rigorous economic and econometric methods.

# 1 Topics Covered by Lectures

- 1. The Dimensions of Inequality and Social Mobility
  - (a) Basic Facts and Trends
  - (b) Prices, Endowments, and Shocks
  - (c) Skills
  - (d) Transfers and Taxes
  - (e) The Role of Family and Policy on Endowments
  - (f) What Should Inequality Be
  - (g) Separating Inequality from Social Mobility
- 2. Education and Inequality
  - (a) Causal Inference and Instrumental Variables
  - (b) Structural Models
  - (c) Evidence
  - (d) The Role of Capabilities as a Broader Notion of Skills
  - (e) The Role of Credit Constraints
- 3. Shocks and Uncertainty

- (a) Internal and External Variability
- (b) Modeling Uncertainty
- 4. The Dynamics of Skill Formation
  - (a) B.P. + Technology / Adult
  - (b) The Creation of Initial Conditions
- 5. Models and Methods for the Study of Family Influence
- 6. Genes and Environments
- 7. Health: Life-Cycle Origins and Determinants
- 8. Social Mobility: Determinants and Models
- 9. Summary

# 2 Reading Lists

- 1. The core reading list offers a guide to the literature in each of the class' topics and is here: (link to core reading list).
- 2. The supplementary reading list offers students the possibility for further investigation of the class' topics and is here: (link to supplementary reading list).
- 3. The technical reading list provides background on the tools to do research on the frontier of the class' topics and is here: (link to technical reading list).
- 4. Lecture handouts will be posted as available. Check the website and your email before class. The TAs will let you know when new handouts are available.
- 5. For some of the sections, there are videos from the 2012 and 2013 Summer School on Socio-Economics Inequality. These are useful as introductory summaries to the main themes of the course.

### 3 Lectures

The class will meet in Rosenwald 301. Professor Heckman will teach on Tuesdays from 3:00 p.m. to 6:00 p.m. with a 15 minute break in between. The class will occasionally meet on Wednesdays in the same schedule. Students will need to read the relevant materials beforehand (the TAs will notify which are these materials in advance). Students will be expected to create a learning dynamics with relevant questions that stimulate discussions about the class topics. The TA session will meet in Rowsenwald 301 on Mondays from 3:00 p.m. to 6:00 p.m. The TA sessions will have two objectives: (i) cover topics not discussed in class due to time limitations; (ii) host a lecture on Structural Econometrics and Estimation by Philip Eisenhauer.

## 4 Grading

#### 4.1 Problem Sets

There will be eight problem sets throughout the quarter. Students can form groups of three to answer the problem set and hand in one answer key per group. Although we cannot monitor this, we encourage students not to divide the questions and answer them individually. Group discussions improve the quality of the answers and sometimes it is evident when they do not happen. The problem sets will account for 25% of the course grade.

### 4.2 Structural Economics Project

There will be one computational project. In it, you will be instructed to solve and estimate a Structural Economics Model. Students can form groups of three to answer the problem set and hand in one answer key per group. The project will be distributed within the first two weeks of classes and will be due six weeks after. Once students hand in the project there will be a guest lecturer, Philipp Eisenhauer, who is going to talk about the project. He will talk about frontier approached to Structural Econometrics and use the project as a base example. The project will account for 25% of the grade. Students who belong to Undergraduate or Master's programs will be welcome to hand in the project but also will be able to have their problem sets account for 50% of the final grade.

#### 4.3 Final Exam

The will be two options for the final examination.

- 1. Research Proposal + Draft
  - (a) Research Proposal (due March 21st): a detailed proposal with (i) research questions; (ii) motivation and relevance; (iii) literature review; (iv) description of theoretical framework and empirical identification (including data, if necessary); (v) a time schedule for the following steps of the project. This will account for 15% of the final grade.
  - (b) Paper Draft (due May 1st): a preliminary draft of the paper which includes (i) the complete basic structure of the paper; (ii) preliminary results or estimations. This will account for 35% of the final grade.
- 2. Final Oral Exam: a final oral exams that will cover all the material of the class. This will account for 50% of the final grade. It will be schedules as permitted by the availability of Professor Heckman between March the 17th and April the 4th.

#### 4.3.1 Remarks

- 1. You will not be able to turn in a paper draft if you do not turn in a research proposal.
- 2. Undergraduate and Masters students will be welcome to hand in the Paper Draft. However, they will be able to have their research proposals account for 50% of the final grade.
- 3. You will have to notify the TAs a final exam option at the end of the fifth week of classes.

### 4.4 TAs

- Jorge L. García (jorgelgarcia@uchicago.edu). Office Hours: Mondays 9:15 a.m.-10:15 a.m. in Stuart Cafeteria.
- John Eric Humphries (johnerichumphries@gmail.com) Office Hours: TBA. Please note that John Eric will be available as a TA beginning the sixth week of classes.
- Yike Wang (ywang18@uchicago.edu). Office Hours: Monday 12:15 p.m. 1:15 p.m. in Ex Libris Regenstein Cafe (the first floor of Regenstein Library). Please email me beforehand if you plan to come.