EC356: LABOR ECONOMICS

Fall 2024

Professor
Johannes Schmieder
Room 305
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Office hours (In-person or on Zoom):
Usually Monday 2pm – 4pm

Find Zoom link on Blackboard
Sign up on my website for slots:
https://sites.google.com/site/johannesschmieder/office-hours

Or use this QR code link:

Classroom and Time:
Tue & Thu 11:00am to 12:15pm
Room: CAS 203

Teaching Assistant:
Zixian Liu
zxjq@bu.edu
Office Hours: Thu 2-4pm
Econ department B03b

Course description

This course provides an introduction to the field of labor economics. Work is a key determinant in shaping people's life. The choice of a career is a fundamental decision in life, the income derived from work is a crucial determinant of physical well-being, losing a job and unemployment are major life shocks. For most, work is the most immediate effect of how the economy affects individuals. In this class we learn what determines individuals' decisions to work and how much they earn. We discuss firm's decision to hire workers and under what conditions labor markets come to an equilibrium. We will tackle the problem of unemployment, what its possible sources are and what policy makers can possibly do to help the unemployed. Finally, we will discuss the topic of rising wage inequality in the US and many other countries.

The goal of the course is to provide a thorough understanding of central concepts in labor economics, learn mathematical models to clarify economic interactions and problems and to provide an introduction into empirical research in labor economics. The class will teach basic econometrics and most problem sets involve analyzing data in the software package Stata. We will cover articles from current edge research in empirical labor economics and will provide you with the necessary knowledge to understand such research.

Blended Learning

This class will be taught in a blended format, drawing heavily from the flipped classroom approach. As a student you are expected to prepare for each class, usually by watching a recorded video lecture and answering a few questions before class, occasionally complemented by additional readings. During class time we will first discuss questions that came up during the video lecture. The remainder of the class will then be devoted to applying the material from the video lecture in various ways. This will often take the form of working in small groups on solving problems using mathematical tools, software (Stata, Spreadsheets, …) and interpreting empirical results. In addition, we will regularly have discussions on fundamental economic issues and current policy topics.

Class format: in person

While there is an online component (see Blended Learning), this class will be taught pre-dominantly **in person**. You cannot take the class remotely.

Prerequisites

The course will build heavily on the standard microeconomic toolbox and requires successful completion of Intermediate Microeconomics EC201. The course will be taught using mathematical models on the level of intermediate microeconomics and will use calculus techniques, such as taking derivatives and maximizing functions of one or more variables subject to a constraint. We will review these techniques at the beginning of the semester. We will also use econometrics and work with data. It is recommended to have completed EC 203 (or 303) beforehand and advised to take EC 204 (or 304) alongside this class.

Technological Requirements

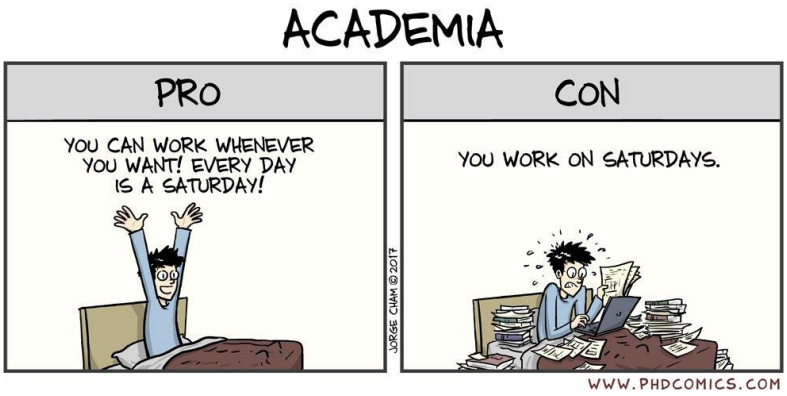
There is **no required textbook** for this class. Instead, there will be video lectures, various required readings and additional materials that I will provide through Blackboard. Furthermore, the video lectures are based on slides which I will provide as well for studying and taking notes.

We will make regular use of the statistical software package **Stata** in this course, often during classtime. For this reason **you need to have a laptop with a version of Stata** on it. The version "Stata/BE" is sufficient for this class and you can get a 6 months license for $48: https://www.stata.com/order/new/edu/gradplans/student-pricing/

Many of the in-class work is based on Google's software like Google Forms, Google Sheets etc.

Workload

You should expect to work on average about 5-6 hours per week for this class outside of the in-classroom time. In addition to the preparation for each class (video lectures and short questions), there are 4 longer problem sets throughout the semester.



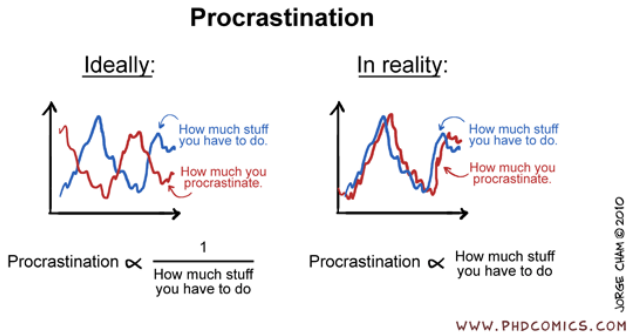
Expectations

If you decide to take this class you can expect from me to be on time, well organized, accessible (email / office hours), and fair in grading. On the other hand, I expect you to:

- Attend class (in person or online)
- Be on time
- Be prepared
- Actively participate in the classroom discussions and in group work.
- Work continuously throughout the semester

Required for each class:

- Know your BU ID#
- Laptop or Tablet.
  - In later classes: laptop with Stata installed.
- In-person class:
  - Mask



Grading

The class grade will be determined by 6 categories, which each have a weight . The categories and weights are:

Category ii	Percent of Class Grade $\omega_i\omega_i$	Maximum Points
Pre-Class Quizzes	10	100
Attendance	10	100
In-Class Activities	10	100
Problem Sets	20	100
Midterm Exam	20	100
Final Exam	30	100

If $p_i p_i$ is the number of points received in category ^{ii}, then the overall class grade is simply:

$$ClassGrade = \sum_i p_i \omega_i$$

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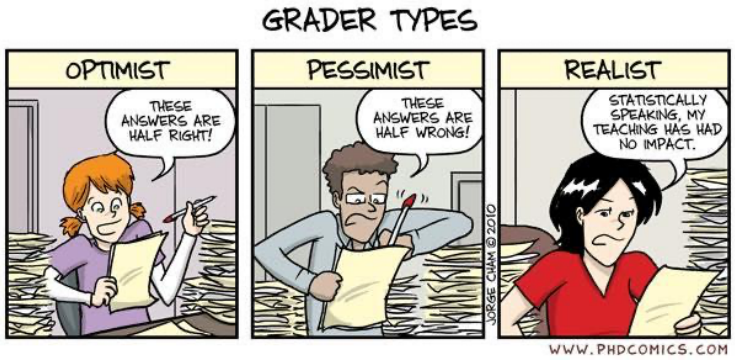
Letter Grades will then be determined according to the following:

Letter Grade	Minimum Class Grade Required:
A	90
A-	85
B+	80
B	75
B-	70
C+	65
C	60
C-	55
D	50
F	0

The points within each category will be determined in the following way:



- Pre-Class Quizzes
  - You are expected to prepare for each class, usually by watching a video lecture and answering a short quiz, with questions that should be straightforward after the video.
  - The quizzes will be graded and your overall grade in this category will be the percent of possible points you receive.
  - All Pre-Class Quizzes are due at the end of the day (11:59pm) before the respective class. You cannot take the test after the due date.
- Attendance:
  - Will be taken at the beginning of the lecture electronically. You will need an internet capable device for this (laptop, smartphone, tablet, …)
  - This will be taken within the first minute of each lecture, if you are late your attendance will not be counted for that day, it does not matter what the reason is!

- The overall attendance points will depend what percentage of lectures you attended along a **convex scale**:
  - 90% Attendance: 100pts
  - 80%-89.9%: 90pts
  - 70%-79.9%: 50pts
  - 60%-69.9%: 20pts
  - <60%: 0 pts.

- In-class Activities
  - We will work on various individual and group activities in class.
  - You get up to one credit for each activity. You will usually get the full score if you give it a serious shot and follow instructions (work in groups, come prepared etc.), but some may be graded in more detail (partial credit is possible).
  - The percent of the total number of credits you received will then be converted into the In-class Activity points using the same transformation as for attendance:
    - 90% of in-class activities: 100pts
    - 80%-89.9%: 90pts
    - 70%-79.9%: 50pts
    - 60%-69.9%: 20pts
    - <60%: 0 pts.

- Problem Sets
  - There will be 4 problem sets throughout the semester. The problem sets are a combination of mathematical exercises that are extensions from the examples we will do in class and empirical work using the software package Stata. Your final homework grade, will be determined by your 3 best scores. So effectively, you can miss one homework assignment without being penalized.
  - The problem sets will be posted on Blackboard and have be submitted as a PDF via blackboard in electronic form. **Late assignments will not be accepted.**
  - I encourage you to work in groups, but problem sets must be **individually written** and submitted. You must show your work – incl. how you arrived at the results – to receive credit. Grading will also be based on the presentation of your answers!
  - Note that submitting a corrupted or wrong file means you also get zero points. It is your responsibility that you uploaded the **correct PDF document**.
  - If you upload the wrong file, a corrupted file or nothing you get 0 points.
  - Take a screenshot of the confirmation in blackboard that your problem set was submitted.
- Midterm Exam

    - Will be graded out of 100 points.
- Final Exam
    - Will be graded out of 100 points.

Excused Absences

"IF MY TEACHER CAN TAKE A SABBATICAL, WHY CAN'T I ?"

The above policy allows you to miss about 2 classes without any penalty. Life events happen and you may have to miss additional classes for health or personal reasons. In this case, you can get an excused absence if:

- You email me at least 60 min before class saying that you are looking for an excused absence,
- **And** you write up a 400 word reflection on the material covered in that module based on the pre-class assignment material (video, slides, readings) and in-class material. You need to email me this reflection within 14 days of the class. This must be a well thought out reflection, not just a short summary. There will be no revisions . If you do so I will give you full credit for attendance and in-class activities for the day you missed.

Exam Format

The Midterm and Final will be in-class exams and the exact nature will be discussed as we get closer to them.

If you miss the midterm exam you will receive a zero for that exam, unless you have a documented health problem or family emergency.

Booking a flight that conflicts with the Midterm or the Final is not a valid reason to miss either of them. You'll get a 0 if you miss an exam for that reason!

Re-grading Policy

If you feel that the TA or I have overlooked part of your solution or graded it incorrectly, please hand in (via email) a note explaining what you feel should be re-graded within two weeks that the assignment / exam was returned. Once the two weeks have passed, you forfeit the right for a re-grade. I always reserve the right to re-grade the entire assignment.

MIDTERM EXAM: during normal class time – see schedule

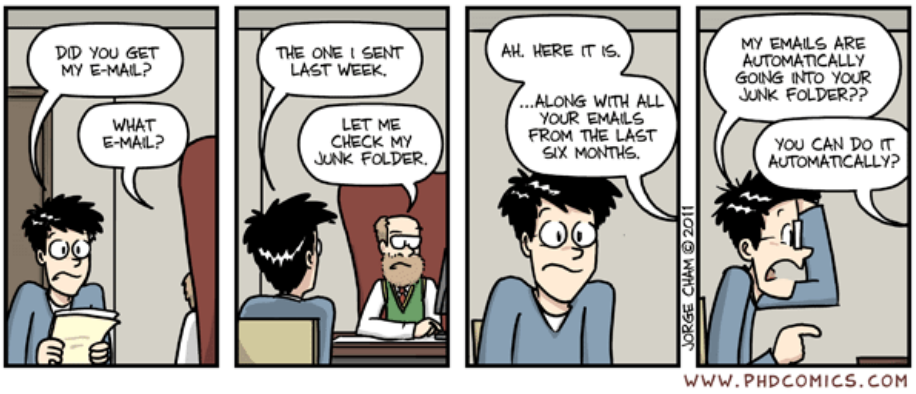
FINAL EXAM: to be scheduled, check student link

Communication

Talk with us (Professor and TA) and share your concerns during the semester! We cannot act upon things of which we are unaware. Go to office hours, set up appointments, or communicate by e-mail if you have any questions or open issues.

Also please talk to me as early as possible in case of a personal or medical crisis that will interfere with your ability to keep up with the course work and we can talk about possible paths forward.

Email



Feel free to email me if you have questions or if things are unclear. In the vast majority of cases, I will respond within 48 hours to your emails.

Please spend the time to write an email that could pass as 'professional'. Make sure to include "EC356" in the subject line (since I'm teaching several classes this helps avoiding confusion). Start with a proper address ("hi prof" is not it), write full sentences, be concise but explain exactly what your question is, what problem / lecture etc. you are referring to, spellcheck your email, …

Academic Conduct

Incidents of suspected cheating will be reported to the Dean's office. Students who have cheated or plagiarized will additionally receive a zero on the exam or assignment. It is students' responsibility to know and understand the provisions of the CAS Academic Conduct Code: http://www.bu.edu/academics/policies/academic-conduct-code/.

Students with Documented Disabilities

If you have a disability that necessitates extra time for exams, or any other accommodations, you will need to give me a note from the BU office of Disabilities Services *at least 2 weeks before the midterm* so that I can make arrangements.

BU Hub

The course fulfills the requirements of the BU Hub for Social Inquiry II and Quantitative Reasoning II.

Social Inquiry II:

Students will encounter a wide range of social and political challenges that arise in the labor market, such as unemployment, rising wage inequality and discrimination. In order to develop a framework to understand and analyze these challenges, students will apply the mathematical tools they acquired in previous classes, such as EC201 (Intermediate Microeconomics) to build theoretical models of how labor markets operate. These models then serve to formulate precise empirical questions that can be analyzed in new and existing datasets.

Using knowledge in theoretical and empirical tools, students will develop a critical understanding of key questions of public policy, such as how well progressive income taxes can counterbalance rising wage inequality, whether the minimum wage can alleviate poverty or will just lead to a rise in unemployment, how unemployment benefits can be used to help workers after job loss and many more. This will entail an ability to critically evaluate empirical and especially causal claims and to develop a clear theoretical understanding of the underlying issues faced by policy makers.

Quantitative Reasoning II:

Students will make extensive use of real world datasets to analyze the effects of public policy on social and economic outcomes. Special emphasis will be put on how to empirically establish causal relationships in the social sciences as opposed to mere correlations, by using modern design based methods. Students get extensive hands on experience with a variety of datasets and confronting a range of different empirical questions.

Students will also use mathematical modeling to describe labor markets that allows analyzing specific public policies. For example, we will develop models of monopsony in the labor market and how that affects the analysis of the minimum wage, we use search models to analyze unemployment benefits or asymmetric information models to analyze discrimination in the labor market.

Students will learn to formulate empirical hypothesis and develop an understanding of how to translate those into concrete statistical tests.

Students will learn to present quantitative results in clear convincing figures and tables. Students will learn the potential pitfalls of quantitative methods and how statistical results can be misleading when used improperly. They will develop an ability to critically question quantitative results outside the classroom, such as in research, the press or work life.

EC 356 Class Plan

Date	Class #	Part	Module	Content	Pre-class
Tue, Sep 03	1	0. Prologue	0.1 Introduction	The Market for Labor Course Mechanics	--
Thu, Sep 05	2	1. Labor Supply Theory	1.1 Labor Supply I	Fundamentals of labor supply	--
Tue, Sep 10	3		1.2 Labor Supply II	Deriving LS Equation	Video: from individual utility to labor supply equation
Thu, Sep 12	4		1.3 Labor Supply and Taxes	Income Taxes, Laffer Equation	Video: Taxes intro / Laffer curve Read: Piketty and Saez 2007
Tue, Sep 17	5		1.4 Labor Supply and Taxes	Optimal Tax Formula	Video: Optimal Tax Formula
Thu, Sep 19	6	2. Estimating Labor Supply	2.1 Regression Analysis Review	Review Fundamentals of Regression Analysis	Video: Regression Read: Sykes
Tue, Sep 24	7		2.2 Regressions with Stata	Labor Supply Evidence / Stata	Video: Stata
Thu, Sep 26	8		2.3 Omitted Variable Bias	Omitted Variable Bias	Video: Correlation Video: OVB
Tue, Oct 01	9		2.4 Experiments	Experiments in Economics, Fehr and Goette 2007	Video: Experiments
Thu, Oct 03	10		2.5 Evidence from Tax Reforms	Difference in Difference Designs Labor Supply Examples	Video: Diff-Diff
Tue, Oct 08	11		2.6 Transfer Programs	Welfare Programs, Midterm	No Video Read: Nichols and Rothstein 2015
Thu, Oct 10	12		MIDTERM		
Tue, Oct 15	Monday Schedule				
Thu, Oct 17	13	3. Minimum Wage	3.1 Min Wage Theory	Neoclassical Model Labor Demand Elasticity depends on Product Demand	Video: Minimum wage intro
Tue, Oct 22	14		3.2 Min Wage Theory II	Capital / Labor Substitution Monopsony	Video: Capital / Labor Substitution Read: Stigler 1946
Thu, Oct 24	15		3.3 Minimum Wage Evidence	Neumark & Wascher, C&K	Video: MW Evidence Read: Card & Krueger 1994
Tue, Oct 29	16		3.4 Minimum Wage Evidence II	Dube, Lester & Reich	Video: Dube, Lester, and Reich
Thu, Oct 31	17	4. Unemploy-ment	4.1 Unemployment	Definition of unemployment Explanations Unemployment in neoclassical model	Video: Unemployment definitions and explanations
Tue, Nov 05	18		4.2 Unemployment Insurance	Reasons for UI A model of job search	Video: Unemployment Insurance / Read Barro

Thu, Nov 07	19		4.3 UI Evidence	The effect of UI extensions in recessions. Evidence on the effects of UI	UI Extensions Regression DIscontinuity
Tue, Nov 12	20		4.4 UI Evidence	More evidence on the effects of UI extensions.	Read: Leung and O'Leary, 2015
Thu, Nov 14	21		Buffer		
Tue, Nov 19	22	5. Wage Structure	5.1 Human Capital	Introduction to human capital Estimating the returns to education	Video: Human capital
Thu, Nov 21	23		5.2 Discrimination	Discrimination in the labor market Gender wage gap	Video: Discrimination / Gender Pay gap
Tue, Nov 26	24		5.3 Wage Inequality I	Measuring wage inequality The role of returns to education	Video: Measuring Inequality
Thu, Nov 28	Thanksgiving				
Tue, Dec 03	25		5.4 Wage Inequality II	Other explanations for increase in inequality	Video: Rent Sharing Read: Corak, 2013
Thu, Dec 05	26	6. Epilogue	6.1 Policy Responses	Simulation game of how policy can affect inequality and labor market outcomes	Read: Shierholz, 2018
Tue, Dec 10	27		6.2 Review	Review of Material	Review material on your own
Dec 16 - 20		Final	Final Exam Week		