

# LABOR ECONOMICS, DIGITALIZATION, AND AI

## Bachelor in Economics BIE SEP-2023 LED-Ec.3.M.A

Area Economics

Number of sessions: 15

Academic year: 23-24

Degree course: THIRD

Number of credits: 3.0

Semester: 1<sup>o</sup>

Category: COMPULSORY

Language: English

Professor: **ENESTOR DOS SANTOS EDELE**

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### **ENESTOR DOS SANTOS, PhD**

Enestor Dos Santos is an economist at BBVA Research. His previous professional and academic experience includes the World Bank, the Inter-American Development Bank (IADB), and the Wharton Business School. He holds a Ph.D. in economics from the University of Pennsylvania (USA), a Master's degree in the same discipline from the Getulio Vargas Foundation (Brazil) and a Bachelor's degree from the Federal University of Rio Grande do Sul (Brazil).

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## **SUBJECT DESCRIPTION**

Labor economics focus on people's decision to work, on firm's willingness to hire, on the wage distribution and employment level that arise from the supply and demand of labor, on the effects of "exogenous shocks" such as digitalization, artificial intelligence, a pandemic and a financial crisis, and on how policy-makers can improve labor market outcomes.

Labor economics is a particularly useful framework to analyse and understand many of the social and economic problems modern societies actually face. It provides tools for the analysis of issues such as the effect of robotization and AI on employment levels, the consequences of welfare incentives (such as minimum income schemes) on work incentives, the impact of immigration on the wage of native workers, the evolution and the drivers of income inequality, the suitability of adopting affirmative action programs, etc.

Labor economics is a thriving research field, suitable for applying micro and macroeconomic theories as well as a very rich area to explore empirically. It is also a functional input in the studies on discrimination, digital economics, social policies, pension reforms, childcare, fertility, human resources management, development, industrial organization, political economy, etc.

## LEARNING OBJECTIVES

### 2.1. OBJECTIVES

After finalizing this course, students should be able to analyze and understand labor markets in general and in particular regions or sectors, of identifying the reasons for its healthy or unhealthy state, and of making their own critical assessment regarding labor policies and the impact of exogenous factors such as the digitalization and AI, among many others. For this purpose, the course will develop a theoretical background, but will keep a strong focus on practical issues.

### 2.2. SKILLS

Students are expected to acquire the following skills:

#### *Cognitive:*

- Good understanding of the main theoretical labor models, mainly the neo-classical framework
- Understanding labor supply, labor demand and how the equilibrium emerges from their reciprocal interaction
- Knowing how economic policies and exogenous shocks affect labor market outcomes
- Understanding digitalization and artificial intelligence as well as their possible consequences on labor markets
- Familiarity with economic thinking and economic language
- Familiarity with official sources of economic data, serious sources of economic news and institutional sources of economic analysis

#### *Instrumental:*

- Use of basic models to analyze real life economic events and to make policy inference
- Capacity to abstract and work with simplified versions of reality
- Familiarity with graphical and mathematical analysis
- Ability to elaborate economic reports and conduct basic academic research
- Ability to communicate economic arguments and economic analysis in precise and concise manner

#### *Attitude:*

- Think critically about the limits of economic theory and be able to question experts' assessments with sound arguments
- Be open to different views and arguments regarding economic events
- Take a broad and comprehensive approach for the analysis of economic issues

## TEACHING METHODOLOGY

IE University teaching method is defined by its collaborative, active, and applied nature. Students actively participate in the whole process to build their knowledge and sharpen their skills. Professor's main role is to lead and guide students to achieve the learning objectives of the course. This is done by engaging in a diverse range of teaching techniques and different types of learning activities such as the following:

<b>Learning Activity</b>	<b>Weighting</b>	<b>Estimated time a student should dedicate to prepare for and participate in</b>
Lectures	26.67 %	20.0 hours
Discussions	13.33 %	10.0 hours
Exercises in class, Asynchronous sessions, Field Work	13.33 %	10.0 hours
Group work	20.0 %	15.0 hours
Individual studying	26.67 %	20.0 hours
<b>TOTAL</b>	<b>100.0 %</b>	<b>75.0 hours</b>

## **PROGRAM**

### **SESSION 1 (LIVE IN-PERSON)**

Course overview and an introduction to labor economics.

### **SESSION 2 (LIVE IN-PERSON)**

Labor supply

Support material:

*Book Chapters: Chapter 2 , G. Borjas, Labor Economics, International Edition, 8th Edition, 2020.*

*(See Bibliography)*

### **SESSION 3 (LIVE IN-PERSON)**

Labor supply

Support material:

*Book Chapters: Chapter 2 , G. Borjas, Labor Economics, International Edition, 8th Edition, 2020.*

*(See Bibliography)*

### **SESSION 4 (LIVE IN-PERSON)**

Labor supply and labor demand

Support material:

*Book Chapters: Chapters 2 & 3 , G. Borjas, Labor Economics, International Edition, 8th Edition, 2020 (See Bibliography)*

### **SESSION 5 (LIVE IN-PERSON)**

Labor demand

Support material:

*Book Chapters: Chapter 3 , G. Borjas, Labor Economics, International Edition, 8th Edition, 2020.  
(See Bibliography)*

## **SESSION 6 (LIVE IN-PERSON)**

Labor demand

Support material:

*Book Chapters: Chapter 3 , G. Borjas, Labor Economics, International Edition, 8th Edition, 2020.  
(See Bibliography)*

Assignment 1 will be distributed.

## **SESSION 7 (LIVE IN-PERSON)**

Labor market equilibrium

Support material:

*Book Chapters: Chapter 4 , G. Borjas, Labor Economics, International Edition, 8th Edition, 2020.  
(See Bibliography)*

Deadline for students to submit Assignment 1.

## **SESSION 8 (LIVE IN-PERSON)**

Labor market equilibrium

Support material:

*Book Chapters: Chapter 4 , G. Borjas, Labor Economics, International Edition, 8th Edition, 2020.  
(See Bibliography)*

## **SESSION 9 (LIVE IN-PERSON)**

Human capital

Support material:

*Book Chapters: Chapter 6 , G. Borjas, Labor Economics, International Edition, 8th Edition, 2020.  
(See Bibliography)*

## **SESSION 10 (LIVE IN-PERSON)**

Human Capital / Inequality and wage distribution

Support material:

*Book Chapters: Chapters 6 and 7 , G. Borjas, Labor Economics, International Edition, 8th Edition, 2020. (See Bibliography)*

## **SESSION 11 (LIVE IN-PERSON)**

Inequality and wage distribution

Support material:

*Book Chapters: Chapter 7 from G. Borjas, Labor Economics, International Edition, 8th Edition, 2020  
(See Bibliography)*

Assignment 2 will be distributed.

## **SESSION 12 (LIVE IN-PERSON)**

Incentive Pay

Support material:

*Book Chapters: Chapter 11 from G. Borjas, Labor Economics, International Edition, 8th Edition, 2020 (See Bibliography)*

Deadline for students to submit Assignment 2.

## **SESSION 13 (LIVE IN-PERSON)**

Exam

Support material:

*Book Chapters: Chapters 2, 3, 4, 6 and 7 from G. Borjas, Labor Economics, International Edition, 8th Edition, 2020 (See Bibliography)*

## **SESSION 14 (LIVE IN-PERSON)**

Term assignments: presentations and debates.

## **SESSION 15 (LIVE IN-PERSON)**

Term assignments: presentations and debates.

## **EVALUATION CRITERIA**

### **ORDINARY**

Your final grade in the course will be based on the following criteria:

<b>criteria</b>	<b>percentage</b>	<b>Learning Objectives</b>	<b>Comments</b>
Exam	40 %		
Term Assignment	30 %		
Problem Sets	20 %		
Participation	10 %		

### **RE-SIT / RE-TAKE POLICY**

Passing the course will require both a minimum grade of 5 in the exam and a minimum overall grade of 5. Failing the course will mean retaking all the course material in the extraordinary call.

Regarding participation, two main criteria will be used in reaching judgment about your participation, frequency and quality of your contributions.

There will be one exam covering chapters 2, 3, 4, 6 and 7 from Geoge Borja's textbook on the 13th session of the course. While you will be required to be personally in class for the exam, it will be carried through IE Campus / Blackboard (so you will certainly need to bring and use your laptop this day). The exam will consist of multiple choice questions. Wrong answers will not be penalized. Backtracking will not be allowed.

If for any reason you have problems to attend the exam, you will then be given the option to take a make-up exam either on the 14th session (if your group presentation is scheduled to be on the 15th session) or on the 15th session (if your group presentation is scheduled to be on the 14th session). Note that the make-up exam will cover not only the chapters covered in the "regular" exam (chapters 2, 3, 4, 6 and 7 from George Borja's textbook), but also chapter 11 from George Borja's textbook. Finally, note also that students who take the "regular" exam will not be allowed to take the make-up exam.

Regarding the term assignment, detailed instructions will be provided in the first session of this course and will also be available at Blackboard.

There are two scheduled assignments, but additional ones may be eventually required.

## **GENERAL OBSERVATIONS**

Each student has four attempts over two consecutive academic years to pass this course.

For every BIE Program mandatory class, students are required to obtain the minimum grade of 5 required to pass the course. Students whose grade in the Final Exam (or the largest assignment) is below 5 will fail the course. The rule applies to whichever assignment carries the greatest weight to the final grade. Dates and location of the final exam will be posted in advance and will not be changed.

Students must attend at least 70% of the sessions. Students who do not comply with the 70% attendance rule will receive a 0.0 on their first and second attempts and go directly to the third one (they will need to enroll in this course again the following academic year).

Students who are in the third or fourth attempt must contact the professor during the first two weeks of the course.

## **ATTENDANCE**

In-person attendance is mandatory at IE University, as it is an essential factor of IE's learning methodology. While we do closely monitor attendance in each course, we also consider our students responsible for their own agenda and commitments, as adult university students. With that in mind, each student may miss up to 30% of the sessions within a given course and still maintain the possibility of passing that given course. This 30% "buffer" is to be used for any absences, such as: illnesses, personal emergencies, commitments, official/governmental matters, business and/or medical appointments, family situations, etc. Students should manage their various needs, and situations that may arise, within that 30% buffer. If a student is absent to more than the allowed 30% of the sessions (regardless of the reason), s/he will obtain a 0.0 grade for that course in both the ordinary and extraordinary calls of the current academic year, and s/he will have to retake the course during the following academic year.

Please pay close attention to your attendance. The program strongly encourages attending 100% of the sessions as it will improve your learning outcomes, it will increase the class performance and it will benefit your participation grade. Noncompliance with deadlines for Non-Classroom Learning activities or assignments will result in an absence for the session.

Extreme cases involving emergencies such as: extended hospitalizations, accidents, serious illnesses and other cases of force majeure, are to be consulted with the Program Management ([bir.biemadrid@ie.edu](mailto:bir.biemadrid@ie.edu)) for assessment of the situation and corresponding documentation, in order to support and guide each student optimally.

For more information about the university attendance policy, please check; <https://www.ie.edu/student-guide/bir/policies-and-guidelines/attendance/>

## **RETAKE POLICY**

Any student whose weighted final grade is below 5 will be required to sit for the retake exam to pass the course (except those not complying with the attendance rules, whom are banned from this possibility).

Grading for retakes will be subject to the following rules:

- The retakes will consist of a comprehensive exam or equivalent assignment. The grade will depend only on the performance on this exam; continuous evaluation over the semester will not be taken into account.
- Dates and location of the retakes will be posted in advance and will not be changed.
- The exam/assignment will be designed bearing in mind that the passing grade is 5 and the maximum grade that can be attained is 8 out of 10.

## **PLAGIARISM / ACADEMIC HONESTY**

Plagiarism is the dishonest act of presenting another person's ideas, texts or words as your own. This includes in order of seriousness of the offense:

- providing faulty sources;
- copy-pasting material from your own past assignments (self-plagiarism) without the instructor's permission;
- copy-pasting material from external sources even while citing them;
- using verbatim translations from sources in other languages without citing them;
- copy-pasting material from external sources without citing them;
- and buying or commissioning essays from other parties.

IEU students must contact the professor if they don't know whether the use of a document constitutes plagiarism. For help with your academic writing, contact the Writing Center ([writingcenter@faculty.ie.edu](mailto:writingcenter@faculty.ie.edu)). The professor will also advise the student on how to present said material. All written assignments must be submitted through Turn-it-in, which produces a similarity report and detects cases of plagiarism. Professors are required to check each student's academic work in order to guarantee its originality. If the originality of the academic work is not clear, the professor will contact the student in order to clarify any doubts. Students using external tutorial support should report it to the professor and the BIR Program from the moment they began receiving this support. In the event that the meeting with the student fails to clarify the originality of the academic work, the professor will inform the Director of the Bachelor Program about the case, who will then decide whether to bring the case forward to the BIR Academic Review Panel. Very high similarity scores will be automatically flagged and forwarded to the Academic Review Panel. Plagiarism constitutes a very serious offense and may carry penalties ranging from getting a zero for the assignment to expulsion from the university depending on the severity of the case and the number of times the student has committed plagiarism in the past.

## **BIBLIOGRAPHY**

### **Compulsory**

- George Borjas. (2023). *Labor Economics*. 9th edition. McGraw Hill Education. ISBN 9781266095528 (Printed)

### **Recommended**

- Ronald G. Ehrenberg, Robert Smith. (2018). *Modern Labor Economics: Theory and Public Policy*. 13th edition. Routledge. ISBN 9781138218154 (Printed)

- Derek Laing. *Labor Economics Introduction to Classic and the New Labor Economics*. Norton. ISBN 9780393979527 (Printed)

- Tito Boeri, Jan van Ours. (2021). *The Economics of Imperfect Labor Markets*. Third edition. Princeton University Press. ISBN 9780691206363 (Printed)

## **BEHAVIOR RULES**

Please, check the University's Code of Conduct [here](#). The Program Director may provide further indications.

## **ATTENDANCE POLICY**

Please, check the University's Attendance Policy [here](#). The Program Director may provide further indications.

## **ETHICAL POLICY**

Please, check the University's Ethics Code [here](#). The Program Director may provide further indications.

