

Academic Year: ( 2023 / 2024 )

Review date: 26-04-2023

Department assigned to the subject: Economics Department

Coordinating teacher: CARRO PRIETO, JESUS MARIA

Type: Electives ECTS Credits : 6.0

Year : Semester :

**REQUIREMENTS (SUBJECTS THAT ARE ASSUMED TO BE KNOWN)**

Microeconomics; Macroeconomics; Econometrics; Applied Economics.

**OBJECTIVES**

The aim of this course is to use economic models and the data-analysis techniques learned in previous courses to study the demand and supply of Education. It also includes analyzing the role of Education in economic development, the effects and reasons for the role of the public sector in Education, and answering key questions on current education policies.

In each part of the course, the theoretical foundations will be reviewed. We will study the main theories explaining the demand for education and the model about supply in this special sector. We will also discuss the proper methodology for estimating those demand and supply models and the main results and limitations of the existence empirical evidence.

Students will acquire the following knowledge skills:

- To understand and analyze education policy problems. Examples of issues being currently debated are the effect over efficiency and equality of opportunities of significantly increasing college tuition fees in Spain; whether it is profitable for the society and for the individual to invest more in education, differencing by levels of education; the social and private returns rates of the effect over the quality of education of the increase in the student/teacher ratio; properties of different school choice systems; effects, causes and solutions of the high school drop out rates; etc.
- To understand and analyze the role of education on countries' development.
- To understand, estimate, and interpret functions of costs and demand in order to know their determinants. and to show their utility for the formulation of education policies.
- To understand, estimate and analyze the effects of determinants of the quality of education and to show their utility to evaluate education policies.
- To analyze the public sector intervention in education.
- To study and compare different systems of financing Education and their effects.
- To learn research strategies specific to the empirical research on the Economics of Education. This includes learning techniques, and the use of statistical resources, among other things. This particular skill will be very useful, for example, in doing the Bachelor thesis.

Moreover, students will improve the following skills :

- Analytical and presentation skills of scientific results.
- Ability to evaluate empirical research in Economics of Education.
- Critical analysis of theoretical model and empirical strategies used to answer relevant questions about the economics of education and to evaluate education policies.

With respect to attitudes, as a result of the work done in this course, the following attitudes will be strengthen:

- Curiosity and interest for solving empirical problem with rigour, and to test and quatify answer to questions in this subject.
- Ability of understand and compare several theories offering alternative explanations to a given observed fact.
- Critical attitude to detect wrong arguments and reasonings in the evaluation of education policies.

## DESCRIPTION OF CONTENTS: PROGRAMME

### 1.- Introduction

Introduction. Topics in Economics of Education.

Indicators in education: gross and net enrollment rates; measures of Investment in education and human capital stock. Human capital and economic growth: is there a causal relation? Is education quality driving countries' economic growth or is it that richer countries have better education systems?

### 2.- Education Demand

What are the reasons that explain the demand for education?

Human capital theory. Implications. Consumption theory. Theory of signaling. The intergenerational transmission of inequality.

Empirical implications of demand models. Determinants of demand: the importance of socioeconomic background and the effects of unemployment.

### 3.- Economic returns to education

What are the earnings premiums (if any) from education?

Mincer wage equation. Estimation of the returns: methods, main findings in the empirical literature, limitations (biases), possible solutions. Effect on the probability of unemployment. Applications. Are there too many university graduates (over-education)?

### 4.- Costs of education

How much is spent per student? Which are the costs of studying? Expenses and education costs. Public spending and private spending. Cost functions. Economies of scale and economies of scope.

### 5.- Production (supply) of education

How is school quality measured? Which are the factors explaining quality of education? How can we explain the fact that two students with the same number of years of education acquire different levels of human capital? Which is the impact on school quality of increasing class size? Which are the determinants of school dropout? What policies have greater impact on students performance?

School Inputs and Outputs (Student Achievement): definitions and measures. The Impact of the Coleman Report. Education Production Functions: the cumulative education production model, and the  $\gamma$  value-added  $\gamma$  model.

The Determinants of School Quality. Main results in the literature on the relative impact of school inputs on student achievement: education spending, class size, peer-group effects, teachers' quality, school quality,  $\gamma$  tracking policy  $\gamma$  etc.

### 6.- The Financing of Compulsory Education.

The local and public model. School vouchers: Models and Experiments. Publicly financed Private Education. Efficiency and equity. School choice issue. Which are the effects of different school systems and school choice programs on equality of opportunity? Do they lead to better school quality?

### 7.- The Financing of Higher Education

How much do tertiary students pay and what public subsidies do they receive? Does that financing system lead to efficiency and equality of opportunities?

Fees, grants, loans and taxes. Experiences in some OECD countries. Financing public universities. Models of resource allocation to the universities. Evaluation, financing and incentives.

Over the course we will also see the usefulness of the various aspects covered for policy analysis in education and training and for assessing the public sector intervention in education.

Bibliography can be found in the file under "Detailed subject contents or complementary information"

## LEARNING ACTIVITIES AND METHODOLOGY

For the various topics covered in this course, we will follow the following methodology:

- Motivation with relevant and topical questions on education and the basic data managed in the public debate.
- Formal explanation of the various theories developed to address and respond to each question. This will include exercises to be developed by students on these theories and their possible extensions.
- Review of the econometric techniques necessary to contrast the theories and make a measurement of effects.
- Empirical analysis of the problems and answers to the relevant questions that motivated the topic.
- Reading, presentation and critical comments by the students of different theories and the results available in the scientific literature on each topic.
- Elaboration and presentation of short empirical works by students, which may include searching for updated data that may motivate or support other theories, giving a rigorous answer to questions in the course, and describing the actual situation on the aspect treated.

## ASSESSMENT SYSTEM

The Continuous Assessment will be made (and will contribute to the final grade of the course) as follows:

- 40% of the grade in the course will come from the presentations made by students in class about some of the topics or issues proposed by the teacher for this purpose. These presentations will be on one of the topics covered in the course, or an empirical study done by the student, or an empirical description of some aspect based on data sought by the student, or explanation of any research article regarding some of the aspects covered in the course, etc. The final allocation of subjects and dates of presentations to each student will be made by the teacher taking into account students preferences and the proper and balanced development of the course. The assessment of this presentation will consider all aspects of the presentation (content, knowledge of the subject, ability to explain it, format, etc.) and its preparation.
- 10% of the grade in the course will be based on attendance and participation with comments and questions on presentations of the rest of students.

The remaining 50% of the grade in the course will come from the end-of-term Exam.

<b>% end-of-term-examination:</b>	50
<b>% of continuous assessment (assignments, laboratory, practicals...):</b>	50

## BASIC BIBLIOGRAPHY

- Gary Becker Human capital: a theoretical and empirical analysis, with special reference to education, Columbia University Press.
- Hanushek, E., y F. Welch, editores Handbook of the Economics of Education, North Holland.
- Jacob Mincer Schooling, experience and earnings, Columbia University Press.
- María Jesús San Segundo Economía de la Educación, Síntesis.
- null See file with Detailed Content of the course, Books and papers from various journals and sources.