Universitat Autònoma de Barcelona

2019/2020

Economic Demography

Code: 102450
ECTS Credits: 6

Degree	Type	Year	Semester
2501573 Economics	OT	3	2
2501573 Economics	OT	4	0

Contact

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Use of Languages

Principal working language: spanish (spa)
Some groups entirely in English: No
Some groups entirely in Catalan: No
Some groups entirely in Spanish: Yes

Prerequisites

They have not been established

Objectives and Contextualisation

1. To know the instruments, techniques and basic methods of demographic analysis. The student will become familiar with the data sources of demographic research, the construction of statistical tables, their graphic representation and the calculation of various indicators of changes in the composition and components of population growth. The methods of standardization and decomposition, the construction of cohort and periodl tables are shown, to study mortality, fertility and other demographic and social phenomena; and the calculation, based on these tables, of probabilities and various synthetic indicators of these demographic and social variables. Finally, stable population models and the main techniques to establish population projections are presented.

2. To examine the economic and social causes and consequences of population changes. Among the consequences are examined the effects of population growth on economic growth and the environment, the impact of migration on the labor market and public finances and the consequences of changes in the age composition of the population in the systems of transfers between generations -health and pensions-. The course will also analyze the causes of changes in some behaviors and demographic variables, nuptiality, fertility, migration and mortality. Attention is focused on the recent evolution of these variables and the forecasts established for the coming years.

Competences

Economics

- Analyse quantitative and qualitative information referring to economic phenomena and variables.
- Capacity for adapting to changing environments.
- Identify the environmental and social impacts associated with economic activity.
- Lead multidisciplinary and multicultural teams, implementing new projects and coordinating, negotiating and managing conflicts.
- Organise the work in terms of good time management, organisation and planning.

- Select and generate the information necessary for each problem, analyse it and take decisions based on that information.

Learning Outcomes

1. A capacity of oral and written communication in Catalan, Spanish and English, which allows them to summarise and present the work conducted both orally and in writing.
2. Analyse the different interpretations and solutions considered to deal with the problems associated with the sustainability of economic systems, from different theoretical perspectives.
3. Apply the main methods to assess projects.
4. Capacity to adapt to changing environments.
5. Create transverse and longitudinal tables of demographic behaviour and other social phenomena, and interpret the main synthetic indicators used.
6. Examine some of the consequences of demographic fluctuations and the changes in the age structure on the labour market and the structure of the demand of goods and services.
7. Identify the energy and food changes that have taken place during the contemporary economic growth.
8. Identify the main current environmental problems, and their relationship with population growth and the current models of economic development.
9. Know how to correctly use the analytical concepts of ecological economy, and the instruments of environmental economic policy.
10. Lead multidisciplinary and multicultural teams, implement new projects, coordinate, negotiate and manage conflicts.
11. Organise work, in terms of good time management and organisation and planning.
12. Perform an integrated analysis of the economic, demographic, social and ecological variables, on the basis of different historical experiences.
13. Recognise the effects of age, generation and momentum on demographic and social behaviour.
14. Recognised the biophysical aspects related to the economic activity.
15. Relate the international economic and ecological aspects in the different phases of contemporary economic growth.
16. Select and generate the information needed for each problem, analyse it and make decisions based on this information.
17. Understand the economic and political debates about the evolution of demographic growth and migration.
18. Use standardisation methods to isolate the effects of structure on the added indicators.

Content

First part: DEMOGRAPHIC ANALYSIS

1. Population growth

1.1 The evolution of the world population and the projections of the UN

1.2 The demographic transition in different groups of countries

1.3 Sources and methods of counting the population

1.4 The measure of growth: rates and their calculation

1.5 Use of graphs with arithmetic and logarithmic scales

2. Changes in the composition by sex and age of the population

2.1 The relationship between male and female populations: determinants and consequences

2.2 Indicators and graphic representations of the composition by sex and age

2.3 Causes and perspectives of the aging of the population in different regions of the world

2.4 Consequences of changes in age composition

3. Components of growth and the use of gross and specific rates

3.1 Records of natural and migratory movement, continuous and retrospective information

3.2 The balance equation, the gross rates and their calculation

3.3 The interpretation of gross rates and the use of age specific rates

3.4 The control of structural effects: direct and indirect standardization methods

4. The description of demographic phenomena

4.1 The temporal reference of the phenomena and the use of the Lexis Diagram

4.2 Types of magnitudes (stock, flow) and measures (ratios, proportions, rates and probabilities)

4.3 Period and cohort approach: longitudinal, transversal and by age or duration

4.4 The interpretation of transversal data: the distinction of the effects of age, generation and momentum. Analysis of sociodemographic variables

5. Construction of demographic tables

5.1 Functions of a table and synthetic indicators: the model of life table

5.2 Construction and interpretation of period life tables

5.3 The use of indirect methods and life model tables

5.4 Application to the analysis of fertility. Period and Cohort Tables

5.5 The analysis of fertility based on censuses and retrospective surveys

6. Population models and demographic projections

6.1 Rates of Reproduction and the Intrinsic Rate of Growth

6.2 Characteristics and properties of stable populations

6.3 Common forecast techniques and applied projections by topic

Second part: ECONOMY OF THE POPULATION

7. Economic and demographic growth and population policies

7.1. The Malthusian model

7.2. The demo-economic models from 1950: theoretical development and empirical evidence

7.3. Externalities and the population debate: microeconomic approach

7.4. Population growth from the perspective of ecology and other sciences

7.5. Overview of current population policies

8. The determinants of health and mortality

8.1 Historical evolution and future perspectives of life expectancy

8.2 International disparities in mortality

8.3 Internal inequalities in mortality in Western countries

9. Economic theories of fertility

9.1 Decline, fluctuations in fertility and identification of proximate variables

9.2 Caldwell's anthropological perspective and the theory of intergenerational flows. The socio-demographic perspective of fertility transitions

9.3 The microeconomic theory: Leibenstein, Becker and the Chicago school

9.4 The macro-economic theory: Easterlin and Lee

10. Consequences of immigration and changes in the structure of the population in the:

10.1 labor market and economic activity

10.2 public spending and transfers between generations

10.3 standard of living and the structure of consumption

Methodology

Lectures: the main analytical instruments are presented and a synthesis of the theoretical developments and empirical evidences of each subject are provided. The objective is that the students have enough knowledge to solve the exercises, contextualize and understand the recommended readings, motivate their initiative to ask questions, develop their analytical and argumentative skills on the topics related to the program.

Practical classes: the proposed exercises are solved in the classroom, the advantages and limitations of the procedures used are analyzed and their possible applications to other issues and problems are explored. The most common deficiencies in the accomplishment of exercises, collection, presentation and process of the data and interpretation of the results are corrected.

In order to take better advantage of the lectures and practices, intensive use is made of the virtual campus, where the corresponding dossiers of the classes, statistical documentation, different recommended readings and statements and solutions of the exercices are published for all syllabus topics.

Tutorials: doubts are resolved and students are individually oriented in order to facilitate the evolution of their learning process and the acquisition of competences and develop their interests and skills.

Activities

Title	Hours	ECTS	Learning Outcomes
Type: Directed			
Master classes	33	1.32	12, 5, 13, 17, 6, 7, 8, 18
Practical classes	10.5	0.42	1, 5, 13, 11, 16, 18
Type: Supervised			
Tutorials	4	0.16	1, 10, 11, 16
Type: Autonomous			
Performing exercices	50	2	1, 5, 13, 10, 11, 16, 18
Readings and study	46.5	1.86	12, 17, 6, 8, 10, 11, 16

Assessment

The subject will be graded based on the grades obtained in two midterm exams and one exercise in the classroom: midterm exam 1 (topics 1,2,7 and 8), classroom exercise (topic 3) and midterm exam 2 (topics 4,5,6,9 and 10). The final grade will be the arithmetic mean of these three grades.

For those students who have completed at least 2 of the three continuous assessment tests and obtain a grade between 3.5 and 4.9, there will be a recuperation exam. This exam will be scheduled by the School of Economy administration. The student who passes this exam will get a grade of 5. Otherwise, he will keep the same grade.

The student who performs 1 or none of the three continuous assessment tests, in his record will will be graded as "non assessable subject".

Calendar of evaluation activities

The dates of the evaluation activities (midterm exams, exercises in the classroom, assignments, ...) will be announced well in advance during the semester.

The date of the final exam is scheduled in the assessment calendar of the Faculty.

"The dates of evaluation activities cannot be modified, unless there is an exceptional and duly justified reason why an evaluation activity cannot be carried out. In this case, the degree coordinator will contact both the teaching staff and the affected student, and a new date will be scheduled within the same academic period to make up for the missed evaluation activity." ***Section 1 of Article 115. Calendar of evaluation activities (Academic Regulations UAB)****.* Students of the Faculty of Economics and Business, who in accordance with the previous paragraph need to change an evaluation activity date must process the request by filling out an Application for exams' reschedule
https://eformularis.uab.cat/group/deganat_feie/application-for-exams-reschedule

Grade revision process

After all grading activities have ended, students will be informed of the date and way in which the course grades will be published. Students will be also be informed of the procedure, place, date and time of grade revision following University regulations.

Retake Process

"To be eligible to participate in the retake process, it is required for students to have been previously been evaluated for at least two thirds of the total evaluation activities of the subject." ***Section 3 of Article 112 ter. The recovery (UAB Academic Regulations)****.* Additionally, it is required that the student to have achieved an average grade of the subject between 3.5 and 4.9.

The date of the retake exam will be posted in the calendar of evaluation activities of the Faculty. Students who take this exam and pass, will get a grade of 5 for the subject. If the student does not pass the retake, the grade will remain unchanged, and hence, student will fail the course.

Irregularities in evaluation activities

In spite of other disciplinary measures deemed appropriate, and in accordance with current academic regulations, *"in the case that the student makes any irregularity that could lead to a significant variation in the grade of an evaluation activity, it will be graded with a 0, regardless of the disciplinary process that can be instructed. In case of various irregularities occur in the evaluation of the same subject, the final grade of this subject will be 0"*. ***Section 10 of Article 116. Results of the evaluation. (UAB Academic Regulations).***

Assessment Activities

Title	Weighting	Hours	ECTS	Learning Outcomes
Exercise in the classroom	33	2	0.08	12, 1, 5, 13, 7, 14, 16, 18
Midterm exam 2	34	2	0.08	12, 3, 4, 1, 5, 6, 10, 11, 16
Midterm exam 1	33	2	0.08	12, 2, 1, 17, 6, 8, 15, 16, 9

Bibliography

In virtual campus, dossiers with class notes, statistical documentation, recommended readings and statements of the exercises are published for all syllabus topics. In addition, this material is recommended:

First part: DEMOGRAPHIC ANALYSIS

The demographic analysis textbooks listed below can be used interchangeably -they are all available at the CCSS library-, according the student's preference for preparing the first part of the course. The dossiers with course notes, statistical documentation and exercises are available in "campus virtual". They will be also necessary.

HENRY, L. 1976. Demografía. Análisis y modelos. Barcelona, Ed. Labor

HINDE, Andrew. 1998. Demographic methods. Arnold.

LEGUINA, J. 1981. Fundamentos de demografía. Madrid, Siglo XXI

LIVI BACCI, M. 1993. Introducción a la demografía. Barcelona, Ariel.

PRB'S Population Handbook. 2011 https://www.prb.org/wp.../prb-population-handbook-2011

PRESSAT, R. 1983. El análisis demográfico. México, Fondo de Cultura Económica

PRESTON, S.H., HEUVELINE, P. i GUILLOT, M. 2001. Demography: measuring and modeling population processses, Blackwell Publishers.

SIEGEL, J.S., SWANSON, D. 2004. The methods and materials of demography. Elsevier.

TAPINOS, G. 1990. Elementos de demografía. Madrid, Espasa Calpe

VALLIN, J. 1995. La demografía, Alianza Editorial, Madrid.

For electronic addresses of producers of demographic statistics, research centers, associations of demography, etc. check the links of the UAB "Centre d'Estudis Demogràfics" website: http://www.ced.uab.es/

Second part: ECONOMY OF THE POPULATION

In the class sessions, the most significant references of each one of the topics of this second part will be presented and commented. Here we present only the references that, due to their synthetically nature, are considered particularly recommendable for all students

AHLBURG, D.A., KELLEY, A.C. i MASON, K.O. 1996. The impact of population growth on well-being in developing countries. Springer. Berlin. Pp.11-36

BECKER, G. 1987. Tratado sobre la familia Madrid, Alianza Universidad: 9-16 i 128-152

CUTLER, D., DEATON, A. y LLERAS-MUNEY, A. 2006. "The determinants of mortality" Journal of Economic Perspectives, vol 20 nº3, pp: 97-120

EZEH, A.C., BONGAARTS J. y MBERU. B. 2012. "Global Population Trends and Policy Options" The Lancet (July 10) doi:10.1016/S0140-6736(12)60696-5.
http://www.sciencedirect.com/science/article/pii/S0140673612606965

LEE, R. 2003. "The Demographic Transition: Three Centuries of Fundamental Change," Journal of Economic Perspectives v. 17, n. 4, Fall 2003, pp. 167-190.
http://pubs.aeaweb.org/doi/pdfplus/10.1257/089533003772034943

LAM, D. 2011. "How the World Survived the Population Bomb: Lessons From 50 Years of Extraordinary Demographic History," Demography, (nov.), pp. 1231-1262
http://link.springer.com/article/10.1007%2Fs13524-011-0070-z

LIVI BACCI, M. (2a. edició 2002). Historia mínima de la población mundial. Ariel. Barcelona

LIVI BACCI, M. 1998. Historia de la población europea. Crítica, Barcelona.

SCIENCE, 29 july 2011, nº dedicat al creixement demogràfic (en particular articles de Bloom, Bongaarts, Lee i Malakoff):): http://www.sciencemag.org/site/special/population/