Demographic Analysis Techniques

Academic Year: (2023 / 2024) **Review date: 20-04-2023**

Department assigned to the subject: Social Analysis Department

Coordinating teacher: SANCHEZ BARRICARTE, JESUS JAVIER

Type: Compulsory ECTS Credits : 6.0

Year : 3 Semester : 1

REQUIREMENTS (SUBJECTS THAT ARE ASSUMED TO BE KNOWN)

Basic knowledge of algebra.

OBJECTIVES

Students will learn the main methods and techniques of demographic analysis and how to interpret the main social and demographic indicators, rates and indexes. Students will also be trained on how to use the most important available data sources to produce their own tables and graphs that describe relevant demographic trends and to carry out population forecasts.

DESCRIPTION OF CONTENTS: PROGRAMME

The course will enable the student to analyze mortality, construct life tables and calculate the life expectancy of a population. Students will also learn how to analyze fertility and its dependency on birth control and the processes of formation and dissolution of couples. Furthermore, students will be trained on the analyses of migration and mobility. Finally, students will learn the use of basic forecasting techniques.

1. Introduction: What is demography? The beginning of demography
2. The sources of demographic information
3. Basic demographic measures (rates, odds, specific rates, etc.)
4. The Lexis diagram, population momentum and generational replacement
5. Mortality: basic measures and indicators
6. The life table: interpretation and use
7. Fertility: basic measures and indicators
8. The formation and dissolution of the couple
9. Mobility and migration
10. Demographic projections
11. Indirect methods of demographic analysis

LEARNING ACTIVITIES AND METHODOLOGY

The theoretical component is comprised of classes taught by lecturers regarding the main demographic measurement techniques and corresponds to 2 ECTS. The practical component of the course, which corresponds to 2 ECTS, requires the completion of exercises consisting on the calculation and interpretation of the main demographic indicators and equations. The individual student work that is embodied in the study of the subject, attending tutorials, query library texts and exams will correspond to 2 ECTS.

ASSESSMENT SYSTEM

Both theoretical knowledge and the numerous exercises that are proposed for resolution will be evaluated. Class attendance with solved exercises that will be proposed along the course will be taken into account. It will be positively valued active participation in class.
A minimum final exam grade of 4.0 is necessary to pass the course.

The extraordinary exam will be worth 100% of the grade and will consist of solving several exercises similar to those carried out in class. There may also be short multiple choice questions for both the theoretical part and the exercises.

% end-of-term-examination:	60
% of continuous assessment (assigments, laboratory, practicals…):	40

BASIC BIBLIOGRAPHY

- Carey, J. y Roach, D. Biodemography: An Introduction to Concepts and Methods, Princeton University Press, 2020

- Henri Leridon y Laurent Toulemon Demografía. Enfoque estadístico y dinámica de las poblaciones , El Colegio de México; CEDUA , 2014

- Kenneth W. Wachter Essential Demographic Methods , Harvard University Press, 2014

- LIVI-BACCI, MASSIMO (1993), Introducción a la demografía,, Barcelona: Ariel Historia., 2003

- SANCHEZ BARRICARTE, JESUS JAVIER El crecimiento de la población mundial, Tirant lo Blanch, 2008

- Yusuf, Farhat, Martins, Jo. M., Swanson, David A Methods of Demographic Analysis, Springer, 2014

ADDITIONAL BIBLIOGRAPHY

- Reques Velasco, Pedro Geodemografía. Fundamentos conceptuales y metodológicos, Santander: Universidad de Cantabria., 2006

- TAPINOS, GEORGE (1988), Elementos de demografía,, Madrid: Espasa Universidad., 1988

- VINUESA, JULIO (Editor) (1994), Demografía. Análisis y proyecciones., Madrid, Editorial Síntesis., 1994