UNIVERSITÀ
DEGLI STUDI DI MILANO-BICOCCA

COURSE SYLLABUS

Demography

2223-1-E4102B066

Learning objectives

The course aims at providing the knowledge to analyse qualitative and quantitative changes in a population and at identifying the determinants of these changes. The course focuses on the demographic and projection methods both at the individual and family level. The students will acquire the skills to search and use demographic data, to analyse and show demographic topics.

The course provides students with the knowledge and the skills to evaluate demographic dynamics, population change and the effects on the socio-economic and political-cultural equilibrium.

Students will acquire the tools for a critical analysis of demographic issues and their evolutions.

Knowledge and understanding. This course allows students to acquire knowledge and understanding as follows:

- analyse qualitative and quantitative changes in a population
- definition of future demographic scenarios

Applying knowledge and understanding. At the end of the course, students will acquire the tools to:

- write demographic report
- analyse critically the demographic evolution
- evaluate demographic dynamics, population change and the effects on the socio-economic and political-cultural equilibrium

Contents

1. Introduction
2. Demographic data

3. Structure and size of a population
4. Growth rates in demography
5. Analysis of demographic events
6. Population projections

Detailed program

1. Introduction

2. Demographic data:

a. national and international

b. practice lab: main sources of demographic data

3. Growth rates in Demography

a. Arithmetic

b. Geometric

c. Continuous

d. Doubling time

e. Practice lab

4. Structure of a population:

a. Population pyramid

b. Population age structure indicators (ageing index, age dependency ratio)

c. Population gender structure indicators (sex ratio, gender composition)

d. Ageing, lowest low fertility

e. Practice lab:

5. Analysis of demographic events:

a. Age-specific rates and crude rates

b. Comparison between demographic rates.

c. Lexis diagram, age last birthday, person-years lived, rates and probabilities)

6. Analysis of demographic events: mortality
   a. infant mortality

b. mortality rates and probabilities

c. life table

d. Practice lab

7. Analysis of demographic events: Fertility
   a. fertility and fecundity
   b. intensity (rates and TFR)
   c. calendar (mean age at birth)
   d. birth order
   e. Practice lab

8. Demographic Transition
   a. phases
   b. history of the world population

9. Analysis of demographic events: Migration
   a. internal and international
   b. intensity
   c. characteristics of migrants
   e. Practice lab

10. Population projections

a. Analytic (age and sex) method

b. Selection of hypotheses

c. Practice lab

11. Analysis of demographic events: family formation and dissolution, households

Prerequisites

None.

Teaching methods

Lectures, exercises and practice labs. The lectures provide both theoretical issues and in-depth focus on current demographic dynamics. The exercises aim at showing the procedures of calculus for the main demographic indexes, rates and probabilities and at interpreting the results. The practice labs allow students to use real data to prepare a report on the demographic condition of a selected area.

Assessment methods

Written exam and an optional oral exam.

The written exam deals with exercises and theoretical questions to evaluate the student’s skills in analysing and interpreting statistical data concerning the population. The oral exam focuses on both theoretical issues and the knowledge of the current population dynamics.

The report aims at verifying the student’s ability to describe the demographic dynamics of a population and discuss their consequences. The final note will be the weighted mean of the report (30%) and written exam (70%). The students who do not prepare the report will be evaluated only on the basis of the written exam.

The exam will take place at the end of the course. Considered the material available to students, the exam will be the same for all the students regardless if they attend or not the course.

During the Covid-19 emergency, both the written and the oral exam will take place online using WebEx. On the e-learning page of the course, students will find the instructions for taking the exam.

Textbooks and Reading Materials

Blangiardo G. C. (1997), Elementi di Demografia, Il Mulino, Bologna. (ristampa 2006).

Associazione Italiana di Studi di Popolazione (2021). Rapporto sulla popolazione. L'Italia e le sfide della demografia. Il Mulino.

Additional readings or documents will be provided during the course on the e-learning website

During the Covid-19 emergency, in case of difficulty in finding the text books, some alternatives will be provided.

Semester

II semester, approximatively from the End of February to mid-June

Teaching language

Italian.

Sustainable Development Goals