UNIVERSITÀ
DEGLI STUDI DI MILANO-BICOCCA

COURSE SYLLABUS

Population, Territory and Society I (blended)

2526-3-E4102B061

Learning objectives

The course aims to complete the theoretical and practical skills on demographic analyses, with particular attention to specific problems pertaining to spatial aspects.

Knowledge and understanding
This course will provide knowledge and understanding in relation to:

- The spatial nature of demo-social phenomena
- Spatial data processing techniques

Applying knowledge and understanding
At the end of the course the students will be able to:

- Select the most appropriate measurement technique, among the various methods presented, for analyzing each phenomenon with a spatial component addressed in the applied exercises;
- Measure relationships between variables across territories, correctly applying the methods with careful consideration of the spatial scale;
- Accurately interpret the results obtained, avoiding the ecological fallacy.

Making judgement
Students are required to complete 5 practical assignments, individually or in small groups (up to four students), on topics covered in the course. Each group or student selects a geographic area of interest and carries out analyses by preparing structured research reports, based on a template provided by the instructor.

Communication skills
The five research reports allow students to progressively refine their ability to communicate objectives, methods, results, and conclusions on the various topics addressed throughout the course.

Learning skills

The instructor provides the basic tools, data, methods, and software necessary to carry out the assignments. However, students are encouraged to extend their analyses by integrating and comparing them with results from different contexts, published by recognized research institutions.

The course allows the student to acquire a solid base in the application of statistics to the biostatistic / statistical / demographic work context.

Contents

- Tools for spatial analysis in Demography.
- Introduction to GIS.
- Introduction to Spatial Autocorrelation.
- Italian contributions to the spatial analysis of the population.

Detailed program

Tools for spatial analysis in Demography

- distribution and concentration;
- accessibility;
- composition;
- geographical association;
- migration;
- log-linear models for migration;
- diversity and segregation.

Introduction to GIS

- QGis
- GeoDA
- GeoSegregation Analyzer

Introduction to Spatial Autocorrelation
Joint Count, Moran, LISA

Italian contribution to the spatial analysis of the population

- atomistic approach (rural-urban dichotomy; settling patterns identification; demographic malaise);
- contextual approach (the metropolitan areas; gravitational areas; functional distances and meantime at first passage).

Prerequisites

The exam must be preceded by Demography

Teaching methods

Blended e-Learning:

- 6 3-hour tutorials conducted in interactive in-presence mode
- 5 2-hour lectures conducted in face-to-face delivery mode
- 7 2-hour lectures conducted in asynchronous remote delivery mode

Assessment methods

Attendant
oral examination (DISCUSSION OF THE TOPICS COVERED IN CLASS) with individual intermediate tests (SCIENTIFIC LABORATORY REPORT).
The exam consists of a discussion of the topics covered during the course, along with five intermediate assignments completed individually or in groups (scientific laboratory reports).
The oral exam assesses: Knowledge and understanding of the theoretical concepts addressed in the course; Discussion of the intermediate assignments carried out independently; Verification of the individual contribution in the case of group work.
Each scientific laboratory report is evaluated on a scale from 0 to 6 points, based on:

- The ability to apply analytical tools to concrete research topics;
- The ability to write a concise and structured research report.
  The scores of the five assignments are cumulative and contribute to the final grade.

Not attendant
oral examination: DISCUSSION OF THE TOPICS COVERED IN CLASS
The exam consists in evaluating the student's knowledge and comprehension of the subjects presented during the class, also by discussing practical research problems. The object is to evaluate the student's theoretical knowledge and his ability to apply the methods to practical research themes.

Textbooks and Reading Materials

- Darmofal, D. 2015. Spatial Analysis for the Social Sciences. Cambridge University Press.
- Ebdon, D. 1985. Statistics in Geography – Second Edition, Blackwell Publishing.
- Plane, D.A. and Rogerson, P.A.. 1994. The geographical analysis of population. With application to planning and business, John Wiley & Sons, New York.
- Siegel, J. S. and Swanson, D. A. 2004. The Methods and Material of Demography – Second Edition, Elsevier Academic Press, London.

Lecture notes by the teacher.

Semester

1° Semester, approximately in the period October 1st- November 15th

Teaching language

Italian

Sustainable Development Goals

REDUCED INEQUALITIES