UNIVERSITÀ
DEGLI STUDI DI MILANO-BICOCCA

COURSE SYLLABUS

Population, Territory and Society I (blended)

2324-3-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

Ability to apply knowledge and understanding

At the end of the course the students will be able to:

- choose the appropriate measure for the study of phenomena with a spatial component (i.e. choose among the various segregation indices the one suitable for the problem studied)
- measure the relationships between the variables over the territory, that is to apply the tools correctly, with attention to the choice of the scale of analysis (modifiable areal unit problem)
- interpret the results obtained without falling into the ecological fallacy.

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.
- Tools for the classification of the territory.
- Introduction to Spatial Autocorrelation.

- Italian contributions to the spatial analysis of the population.
- Introduction to GIS.

Detailed program

Tools for spatial analysis in Demography:

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

Tools for the classification of the territory:

- factorial ecology;
- cluster analysis (homogeneous areas);
- infrastructures planning (urban mobility, optimal location).

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).

Introduction to GIS.

Prerequisites

The exam must be preceded by Demography

Teaching methods

Blended e-Learning: 28 hours (4 credits) of lessons in the classroom + 14 hours (2 credits) of online work.

During the lessons in classrooms, methods are explained from the theoretical point of view. During the online classes, methods are applied to real problems. The teacher explains how to solve a specific research question. After, each student independently addresses the same subject although in a different geographical area.

*** In the Covid-19 emergency period, lessons may take place remotely synchronously ***

Assessment methods

Attendant: oral examination. The exam consists in evaluating the student's knowledge and comprehension of the subjects presented during the class and in discussing the student's reports on the practical works assigned at the end of each week: the score gained in practical works (score 0-30L) contributes to the overall evaluation.

The object is to evaluate the student's theoretical knowledge and his ability to apply the methods to practical research themes.

Not attendant: oral examination. 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.

*** In the Covid-19 emergency period the exam may take place via Webex ***

Textbooks and Reading Materials

- Plane D.A. e Rogerson P.A., The geographical analysis of population. With application to planning and business, John Wiley & Sons, New York, 1994.Ebdon D., Statistics in Geography – Second Edition, Blackwell Publishing, 1985
- Siegel J S., Swanson D. A., The Methods and Material of Demography – Second Edition, Elsevier Academic Press, London, 2004.
- Golini A., Mussino A, Savioli M, Il malessere demografico in Italia, Studi e Ricerche , Il Mulino, 2001.

Lecture notes by the teacher.

Semester

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

Teaching language

Italian

Sustainable Development Goals

REDUCED INEQUALITIES