COURSE OF STUDY Statistical Sciences

ACADEMIC YEAR *2023 2024*

ACADEMIC SUBJECT Geographical analysis of spatial data

General information	
Year of the course	*First*
Academic calendar (starting and ending date)	*15 september -20 december*
Credits (CFU/ETCS):	6
SSD	*M-GGR/02 Economic-and Political Geography*
Language	*Italian*
Mode of attendance	*Attendance not mandatory but recommended*

Professor/ Lecturer	
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Department and address	*Department of Economics and Finance-Largo Abbazia di Santa Scolastica, Bari*
Virtual room	*TEAMS codice* **alwcnjl**
Office Hours (and modalities: e.g., by appointment, on line, etc.)	*The reception will take placein presence on Mondays and Tuesdays from 9 to 11 a.m. at the Department of Economics and Finance and on line by appointment via emal*

Work schedule	
Hours	

Total	Lectures	Hands-on (laboratory, workshops, working groups, seminars, field trips)	Out-of-class study hours/ Self-study hours
150	*35*	*7*	*108*
CFU/ETCS			
6	*5*	*1*	

Learning Objectives	Provide the theoretical knowledge, operational skills and practical skills required to detect, analyze and process data in order to describe and interpret the underlying geo-spatial phenomena. The graduate in Statistical Sciences acquires a solid formal and methodological preparation based on statistics, mathematics, probability, and an equally solid preparation in the disciplines applied economic statistics, demography, social statistics, financial mathematics essential to address the study of phenomena affecting the population and society.
Course prerequisites	No prior knowledge is required

Teaching strategie	- Frontal lessons carried out with the support of slides in pptx, cartographic material, audiovisual aids updated - Reading and interpretation of audiovisual, graphic and cartographic material guided and coordinated by the teacher - Individual and/or group work guided and coordinated by the teacher

	- Seminars held by industry experts - Preparation of studies and research - Case analysis and simulations - Use of telematics supports
Expected learning outcomes in terms of	Know and know how to apply, critically, keys of interpretation and interpretation of the territory to the different spatial scales in function of spatial data (quantitative and qualitative); to be able to communicate effectively the meaning of spatial data and to use them to explain the spatial evolution of phenomena
DD1 Knowledge and understanding on:	o Knowledge and analytical ability to understand methods, theories, models and key concepts of geographic science aimed at understanding territorial dynamics. o Knowledge and ability to use conceptual and methodological tools for the examination of territories at all levels of intervention, from local to global through the selection and use of qualitative and quantitative.
DD2 Applying knowledge and understanding on:	o Ability to apply the theoretical and methodological perspectives of political economic geography in order to be able to read, interpret and clearly trasmitte the spatial dynamics and the territorial attractiveness o Ability to use in an appropriate way methods and tools for data analysis to read the spatial evolution of the phenomena of the contemporary world
DD3-5 Soft skills	• *Making informed judgments and choices* Know how to collect and analyze, with traditional and IT tools, data and geographic information of quantitative and qualitative type, interpreting them critically; be able to assess in full autonomy of judgment the problems connected with the territorial organization at different spatial scales, clearly motivating the choices and approaches related to the methodologies of geographical science and of statistical science • *Communicating knowledge and understanding* Ability to communicate and argue, whit a personal style and use appropriate terminology, the meaning of spatial data; Abillity to argue, with a personal style and using appropriate terminology, specific to the geographical area, the content learned during the course; ability to interact with colleagues and/or experts on global and local perspectives to generate proposals for territorial analysis • *Capacities to continue learning* At the end of the course, the student will have acquired the necessary competence and skills to search independently for geographical information from different sources (bibliographic maps, graphics, photographs...) to deepen facts and phenomena that require a geographical interpretation and will have gained knowledge to apply territorial analysis tools aimed at interdisciplinary dialogue

Syllabus	
Content knowledge	The concept of territory and territorialization; The concept of territorial attractiveness and its declinations; the relationship between geography and statistics; Research, collection, organization, analysis and coding of data; Representation, processing and interpretation of qualitative quantitative data. Analysis of territorial attractiveness as a function of quantitative and qualitative geo-territorial data
Texts and readings	ROMAGNOLI L., Metodi statistici elementari per la ricerca geografica, Bologna, Patron 2002 VALDEMARIN S., LUCIA M.G., Geografia dell'attrattività territoriale, Milano-Torino, Pearson, 2022.
Notes, additional materials	The recommended texts allow to deepen the main themes related to the course and constitute the primary reference.
Repository	During the lessons will be made available teaching material aimed at applying geographical methodologies aimed at developing the ability of students to apply the acquired knowledge.

Assessment	
Assessment methods	During the course there will be intermediate practical tests aimed at evaluating the knowledge and ability to understand applied, the autonomy of judgment, communication skills and the ability to learn. These tests can contribute to the final assessment that will be carried out through an oral exam related to all the topics covered.
Assessment criteria	*The following criteria shall be used for the assessment of learning:* • *Knowledge and understanding* Ability to present, argue and synthesize, in a critical way and with a clear and appropriate language, the contents and the acquired disciplinary knowledge • *Applying knowledge and understanding* Ability to identify territorial areas in which to apply geographical content and knowledge • *Autonomy of judgment* Ability to autonomous analysis and ability to critically rework qualitative-quantitative data and content with respect to economic-territorial issues • *Communication skills* *Ability to present content and ideas in clear and appropriate scientific language* • *Capacities to continue learning* Demonstrate commitment to deepening independently of topics and disciplinary content; retrieve independently bibliographical sources adequate for cognitive and professional updating
Final exam and grading criteria	The final grade is awarded out of thirty. The exam is passed when the grade is equal to greater than 18
Further information	
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