

Main information on the course	
Academic subject	Ecologia del Paesaggio
Degree course	Laurea Magistrale in Scienze della Natura e dell'Ambiente
Degree class	LM/60 & LM/75
ECTS credits (CFU)	5
Compulsory attendance	Highly recommended
Teaching language	Italian (Slides in English)
Accademic Year	2020/2021

Responsible Instructor	
Name & SURNAME	Paola Mairota
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Tel.	080-5443021
Tutorial time/day	Monday-Friday (on appointment)

Course details	Pass-fail exam/Exam with mark out of 30	SSD	tipologia attività
	Exam with mark out of 30	AGR/05	Characterising

Time	Year	Semester
	I	II

Teaching modes	CFU/ECTS	Lessons (hours)	CFU/ECTS lab	Lab hours	CFU/ECTS tutorial/workshop	Tutorial/workshop hours	CFU/ECTS field trip	Field trip Hours
			33,5				21	

Teaching organisation	Total hours	Teaching hours	Self-study hours
			64,5

Shedule	First lesson	Final lesson

Syllabus	
Course entry requirements	General ecology/Geobotany, English B1, Expertise in the use of spreadsheets (Excel) and open source GIS (QGIS)
Expected learning results	
<i>Knowledge and understanding</i>	The student will have to understand the fundamentals and theoretical assumptions of Landscape Ecology and their usefulness for the purposes of naturalistic research, the analysis of landscape structures and functions and the conservation of environments with a higher degree of naturalness in a perspective of sustainable management. Become familiar with the most current lines of research in Landscape Ecology.
<i>Applying knowledge and understanding</i>	The student should understand the scope and limits of the main methods of quantitative analysis of the structure and functionality of the landscape and its components through examples of application on case studies.
<i>Making informed judgements and choices</i>	The student must acquire autonomy in identifying the causes and consequences of the spatial heterogeneity of the landscape, and be able to operate in areas related to the evaluation, interpretation and analysis of the data needed to provide answers to the main actors of spatial planning and conservation and monitoring of landscapes and habitats, in a trans-scalar and trans-disciplinary dimension.
<i>Communicating knowledge and understanding</i>	The student must acquire the specific vocabulary and terminology of the discipline also through the reading of scientific articles in English.
<i>Capacities to continue learning</i>	The student will have to acquire the ability to deepen and read with a critical spirit

the evolution of the discipline, through the consultation of scientific texts and articles also in English.

Syllabus

Course content	<p>Introductory concepts and framework of the discipline. Levels of organisation and spatial and temporal scales. Notes on the landscape systems of the world, European and Italian and on man-landscape relations. Conceptual models of representation and principles of analysis of the structure of the landscape. Relations between the structure and functioning of the landscape in relation to ecosystem services and biodiversity. Landscape dynamics. Landscape heterogeneity, habitat fragmentation and functional connectivity.</p>
Course books/Bibliography	<p>With Kimberly A., 2019. Essentials of Landscape Ecology. Oxford University Press</p> <p>Other books Ferrari C., Pezzi G., 2013. L' ecologia del paesaggio. Il Mulino (Testo discorsivo introduttivo) Forman R.T.T., 1995 The Ecology of Landscapes and Regions. Cambridge University Press Turner, M.G., Gardner, R.H., O'Neill, R.V. 2001, Landscape Ecology in Theory and Practice Springer</p>
Notes	Anthology of articles and/or extracts from specialist literature by the teacher
Teaching methods	Class lectures using PowerPoint and other multimedia systems, discussions on the topics covered and on the basis of individual or group reading of scientific articles, also in English from leading journals in the field. Tutorials exercises to get acquaintance with the main softwares for landscape analysis (open source software for calculating Landscape metrics, for data analysis, for eco-country modelling), field excursions, also interdisciplinary. Students will be encouraged to work in groups to discuss and make observations together in order to develop critical and self-assessment skills on topics that are also interdisciplinary.
Assessment methods (indicate at least the type written, oral, other)	The examination of the "Landscape Ecology" module will be integrated with that of the "Environmental Legislation" module. In addition to the assessment of the acquisition of knowledge, the ability to reason and make connections with other disciplines of the Degree Course in relation to the trans-disciplinary nature of Landscape Ecology will be evaluated. The details of the other disciplines are not required, but the ability to capture what of the other disciplines allows us to understand the functioning of ecosystem systems.
Evaluation criteria (Explain for each expected learning outcome what a student has to know, or is able to do, and how many levels of achievement there are)	The assessment and final grade will take into account the overall preparation of the student based on the oral interview, as well as the individual contribution and participation in the lectures, classroom discussions and tutorials on questions posed by the teacher. For the final grade, the following will be taken into consideration: clarity of presentation, language skills, ability to summarise and to link the contents of different disciplines.
Further information	