



ENVIRONMENTAL PLANNING AND ASSESSMENT

Enrollment year	2017/2018
Academic year	2021/2022
Regulations	DM270
Academic discipline	ICAR/20 (URBAN PLANNING)
Department	DEPARTMENT OF CIVIL ENGINEERING AND ARCHITECTURE
Course	
Curriculum	PERCORSO COMUNE
Year of study	5°
Period	1st semester (27/09/2021 - 21/01/2022)
ECTS	9
Lesson hours	90 lesson hours
Language	English
Activity type	ORAL TEST
Teacher	DE LOTTO ROBERTO (titolare) - 9 ECTS
Prerequisites	Knowledge derived from Urban Planning teachings
Learning outcomes	<p>Starting from essential lessons about Environmental Planning and Landscape Ecology, the main aim of the Course is to give students theoretical, methodological and practical instruments to enforce Strategic Environmental Assessment procedure to Regional and Urban plans. European Directive 2001/42/CE set a specific process that is mandatory for many plans and programs in order to integrate environmental issues in planning ones, and to assess the effects of their implementation on the environment.</p>
Course contents	<p>The Course is made of three main sections: in the first one basic concepts of Environmental Planning and landscape Ecology will be exposed and explained together with the application fields of Strategic Environmental Assessment. In the second one the SEA procedure will be described following European and Italian legislation. In the third one</p>

students will apply with technical, theoretical and methodological instruments such as assessment methods, Biotope Area Factor application, GIS and Map Overlay.

Environmental Planning, Landscape Ecology and SEA application field
The first part of the course is characterized by lessons about the basic concepts, the cultural implications and historical development of Environmental Planning and Landscape Ecology in worldwide context. Then it will be exposed the field of application of SEA procedure, considering the disciplinary context and the cultural development of concepts connected to sustainability (livability, resilience, flexibility). The role of SEA is described as a process integrated in a worldwide shared attitude toward sustainability objectives which were defined since 1972 in ONU conferences and in European directives.

SEA's procedure and editing

In the second part of the course the procedure of SEA is explained and students are called to simulate a SEA process of a pre-selected urban plan. The process is explained basing on the several passages that compose it; for each passage students will learn the usefulness and the pertinence with the specific urban plan they will practice. The procedure is composed by two main phases. The first is analytical, in which the main components of urban environment are described. All the environmental themes (such as: air, water resources, soil, ecosystem, ...) will be introduced and studied. The second phase consists in the evaluation one in which the effects of urban plan are recognized and assessed. The second part of the course ends with the draft of an Environmental Report.

Technical and operative instruments

The third part of the course will develop some technical instruments that are indispensable to acquire awareness of assessment processes. Some of these techniques are: Strumenti operativi specifici utilizzati nella Valutazione Ambientale Strategica La terza parte del Corso approfondisce gli strumenti operativi specifici utilizzati nella VAS quali: descrizione e utilizzo dei Sistemi di Indicatori, metodi e modelli per la creazione degli scenari alternativi, metodi e modelli per la Valutazione dei progetti

GIS and map Overlay;
Biotope Area Factor;
indicators system: use and definition;
Impact Matrix;
qualitative and quantitative assessment methods;
building of alternative scenario

Teaching methods

Lectures (hours/year in lecture theatre): 80
Practical class (hours/year in lecture theatre): 40
Practicals / Workshops (hours/year in lecture theatre): 0

Recommended or required readings

Material furnished by teaching staff

Frederick R. Steiner. The Living Landscape: An Ecological Approach to

	Landscape Planning. McGraw Hill Professional. 2000.
Assessment methods	The exam is a colloquium with students about the main issues treated at the lessons and about the translation of theoretical themes into practical situations
Further information	Keywords: <ul style="list-style-type: none"> - sustainability; - assessment; - environmental planning; - operational systems.
Sustainable development goals - Agenda 2030	\$lbl legenda sviluppo sostenibile