DETAILED COURSE PROGRAM

1st Semester

No.	Course Code	Course	ECTS Credits
1	ΧΠΥ01	Contemporary issues to Strategic Spatial Planning	6
2	ΧΠΥ02	Contemporary issues in Urban Planning	6
3	ΧΠΥ03	Environmental Urban Design	6
4	ΧΠΥ04	Spatial Planning, Environmental and Law	6
5	ΧΠΥ05	Transport Planning and Spatial Development	6
		Total	**30**

2nd Semester

No.	Course Code	Course	ECTS Credits
1	ΧΠΥ06	Special Issues of Spatial Planning Application	6
2	ΧΠΥ07	Special Issues of Urban Planning Application	6
3	ΧΠΥ08	Climate Change and Risk Management	6
4	ΧΠΥ09	GIS applications in spatial planning	6
5	ΧΠΕ01*	Tourism Spatial Planning	6
6	ΧΠΕ02*	Maritime Spatial Planning - Geopolitics	
		Total	**30**

Elective Courses*

No.	Course Code	Course	ECTS Credits
1	ΧΠΕ01	Tourism Spatial Planning	6
2	ΧΠΕ02	Maritime Spatial Planning - Geopolitics	6

Thesis

3rd Semester

No.	Course Code	Course	ECTS Credits
1		Thesis	30

ΧΠΥ01 _ Contemporary Issues to Strategic Spatial Planning

▪ Semester: 1st ▪ Type: Compulsory ▪ ECTS Credits: 6

- *Instructor: Evangelos Asprogerakas*

1. Introduction / Conceptual approaches. Objectives and feasibility of strategic planning. Levels and scales of spatial planning.
2. The European context: Developments and trends in European spatial policy. Developments and trends in spatial planning on regional level. Urban policy and strategies. Spatially referenced tools. European energy policy and the position of Greece.
3. Spatial planning in Greece: History. The spatial planning system. Principles, approaches and implementation of spatial planning. The interaction between legislation and spatial planning practices.
4. The spatial governance approach.
5. Introduction to Marine Spatial Planning in Europe and Greece: challenges, approaches, tools.
6. Relationship between strategic planning and geopolitics, geographical factors in the distribution of power in the international level. The role of spatial planning (urban network,

ΧΠΥ02_Contemporary Issues to Urban Planning

▪ Semester: 1st ▪ Type: Compulsory ▪ ECTS Credits: 6

- *Instructor: Georgia Gemenetzi*

The course is organized based on a series of selected topics and approaches that shape urban planning in the international, European and Greek territory. It regards a global approach of urban planning current issues that are studied in relation to the established procedures, practices and rules of urban planning. Special emphasis is given to the case of Greece. The under study topics are articulated around the pairs a) space-place, public interest-special interests and rigidity- flexibility of planning taking also into account the typology of European planning systems and their development trends and b) based on ethical issues in planning, analysis of urban space and urban metabolism.

ΧΠΥ03_ Περιβαλλοντικός Αστικός Σχεδιασμός

▪ Semester: 1st ▪ Type: Compulsory ▪ ECTS Credits: 6

- *Instructor: Aris Vartholomaios*

Introduction to Environmental Urban Design (- Human, settlement, and climate: A historical global review, - Sustainability, circularity, and climate resilience at the neighbourhood scale) **Section A: Urban Landscape and Ecosystems** (- Biophilic urban design, - Hydrophilic urban design,

Circular Urban Design, - Multisensory perception of the urban landscape)

Section B: Urban Morphology, Climate, and Energy (- Urban Heat Island (UHI) and urban microclimate - Improving microclimates and thermal comfort, - Low-energy urban forms, - Climate-resilient urban forms)

Section C: Environmental Urban Design in Practice (- Guidelines, best practices, and evaluation frameworks for urban environmental sustainability, - Digital tools for environmental urban design,

Eco-neighbourhoods and environmental urban regeneration case studies, - Environmental regulatory frameworks and design codes

ΧΠΥ04_ Spatial Planning, Environment, and Law

- Semester: 1st
- Type: Compulsory
- ECTS Credits: 6
- *Instructor: Marios Chaintarlis - Constantine Stamatiou*

Spatial Planning, Environment and Law aims: (a) to cover, in the most thorough and comprehensive way, all three aspects through which the relation between humans and space is reflected in the field of legal science, with the adoption and implementation of corresponding arrangements (Spatial Planning – Urban Planning - Environment), (b) to highlight the conditions for developing a modern law policy in the fields of spatial planning - urban planning - and environment; and (c) to obtain a deeper understanding, from an interdisciplinary point of view, of spatial, urban planning and environmental legislation, through dealing with specific legal texts and specific cases applicable in Greece. (d) to highlight the deeper interactive relationship existing between the conclusions or assumptions of the sciences of spatial planning, urban planning and the environment with legal rules and legal principles, which influences the interpretation and ultimately the application of legislation in specific cases, and e) to present and analyze how the central Administration, Local Government, Justice and Civil Society approached and dealt with specific cases of investments in the sectors of energy, tourism, residential development, etc.

ΠΥ05_ Transport Planning and Spatial Development

- Semester: 1st
- Type: Compulsory
- ECTS Credits: 6
- *Instructor: Nikolaos Gavanas*

Introduction/Conceptual Approaches: a. Transportation system – Sizes and characteristics of mobility. Mobility – Accessibility. The spatial footprint of transport – Transport and land use – The relationship between transport and spatial development. Case Study 1: The role of railroads in territorial cohesion and development in the USA in the 18th century – Case Study 2: Historical evolution of urban forms in relation to urban transport systems. Transport and sustainable development – The vicious cycle of congestion – Parameters, impacts, indicators, and data. European transport policy. Strategic planning for urban mobility (Sustainable Urban Mobility Plans, SUMPs) – Case Study 3: Presentation of a Sustainable Urban Mobility Plan (SUMP) for a Greek city and discussion. Participation in transport planning – Theoretical concepts – Methods – Practical application through examples in class. Integrated design and urban mobility – Case Study 4: Copenhagen's Finger Plan, Denmark – Case Study 5: Curitiba's BRT system, Brazil – Case Study 6: Barcelona's Superblocks, Spain – Case Study 7: Cities of X minutes. Digital transition and transport – New mobility services: Prospects and challenges for urban development.

ΧΠΥ06_ Special Issues of Spatial Planning Application

- Semester: 2nd
- Type: Compulsory
- ECTS Credits: 6
- *Instructor: Anestis Gourgiotis*

Spatial Planning Tools and the Spatial Planning System in Greece, Critical Review of Spatial Planning, Comparative Analysis of Spatial Planning Legislation, Operational Implementation of Special Spatial Frameworks, Exercise: Binding density guidelines of Special Spatial Frameworks (SSF), Operational Implementation of Regional Spatial Frameworks Exercise: Harmonization of guidelines at the regional planning level, Special Spatial Framework for Aquaculture Exercise: Creation of a spatial model for a region, The Role of Spatial Planning in the Development of Renewable Energy Sources (RES) Exercise: Recommendation on the spatial allocation of a RES project, Spatial Planning and Industrial Development Exercise: Recommendation on the spatial allocation of a Business Park, Marine Spatial Planning, Spatial Planning as a Tool for the Development of Mountainous Areas Exercise: Recommendation on the spatial allocation of a tourist facility, Landscape Policy as a Regulator of Spatial Planning, Proposals for Improving Spatial Planning to Address Future Challenges.

ΧΠΥ07_ Special Issues of Urban Planning Application

- Semester: 2nd
- Type: Compulsory
- ECTS Credits: 6
- *Instructor: Anastasia Tasopoulou*

This course focuses on issues covering all components/steps of urban policy, with a special focus on its implementation and design processes. Key sections include: a) the content and objectives of urban policy, the integration of modern European policies, relationship between objectives, process, and results; b) the tools of urban planning and their role in the Greek spatial planning system, content, scale, regulatory character, position within European planning typologies, trends and prospects; c) influences from design 'tradition' and other policies, the issue of design 'culture'; d) the current framework for urban planning in Greece, institutions, implementation programs, governance structures and models, critical issues and challenges for planners and administration; e) methods, techniques, and tools supporting urban planning and decision-making processes, qualitative directions and quantitative indicators. The applied part of the course involves in-depth work on specific aspects of current urban policy and its implementation, such as spatial development and organization scenarios, land-use zoning issues, carrying capacity, residential infrastructure capacity, settlement boundaries, etc..

ΧΠΥ08_Climate Change and Risk Management

- Semester: 2nd
- Type: Compulsory
- ECTS Credits: 6
- *Instructor: Apostolos Lagarias*

The aim of the course is to connect climate change with spatial planning issues, both at the urban and regional levels. At the same time, it presents and evaluates modern methodologies for assessing the risk and vulnerability of natural and social systems to climate-related natural hazards. A key focus is the theoretical and methodological exploration of the concept of adaptation in planning, with an emphasis on its social, environmental, and economic dimensions, along with a comparative analysis of best practices from international and European contexts. The applied part of the course involves projects in a Geographic Information Systems (GIS) environment, with the goal of combining and analyzing data related to land use, the built environment, transportation and other infrastructures, as well as population data, to assess exposure and vulnerability to hazards and disasters.

ΧΠΥ09_ GIS applications in spatial planning

- Semester: 2nd
- Type: Compulsory
- ECTS Credits: 6
- *Instructor: Apostolos Lagarias*

Geographical Information Systems, Basic principles Geographical Data Lab 1: Introduction to QGIS

Coordinate Reference Systems, Projections, Transformations Lab 2: Geometric tranformation, projection change (QGIS)

Data Introduction and Management Lab 3: Data input (QGIS) Cartography, Thematic Maps Lab 4: Maps, Thematic Maps (QGIS) Vector data: Basic Analysis Lab 5: Basic analysis with Vector data (QGIS) Raster data: Basic Analysis Lab 6: Basic analysis with Raster data (QGIS)

Surface Analysis – Spatial interpolation Lab 7: Digital surface/elevation models (QGIS)

Multicriteria Analysis and GIS (Part A) Lab 8: Land Suitability Analysis (case study) (1) (QGIS) Multicriteria Analysis and GIS(Part B) Lab 9: Land Suitability Analysis (case study) (2) (QGIS). Multicriteria Analysis and GIS (Part C) Lab 10: Land Suitability Analysis (case study) (3) (QGIS) GIS. modeling GIS and Spatial Planning.

ELECTIVE COURSES

ΧΠΕ01_Tourism Spatial Planning

Semester: 2nd ▪ Type: Elective ▪ ECTS Credits: 6

- *Instructor: Efthimia Saradakou*

The main sections are: Introduction (The concept and purpose of spatial planning – Review of the development of spatial planning for tourism), The spatial dimension of tourism (Spatial development of tourism – The necessity of linking spatial and development planning in tourist destinations – Frameworks and tools for applying spatial policies for tourism), The complex role of spatial planning in sustainable tourism development (The role of spatial planning in regulating tourism activities. Examples from Greece and Europe – The role of spatial planning in facilitating healthy tourism entrepreneurship and attracting investments. Examples of applied spatial policies and actions – The role of spatial planning in creating attractive tourist destinations and products.

Examples of applied spatial policies and actions – The role of spatial planning in creating resilient tourist destinations. Examples of applied spatial policies and actions), Spatial policies and tourism development in Greece. (Review of spatial policies applied for tourism development in Greece – Evaluation of spatial planning effectiveness in relation to tourism development), Conclusion (Current issues, trends, and challenges for spatial tourism planning).

ΧΠΕ02_ Marine Spatial Planning – Geopolitics

Semester: 2nd ▪ Type: Elective ▪ ECTS Credits: 6

- *Instructor: Evangelos Asprogerakas – Anestis Gourgiotis*

The course includes a series of lectures on the following topics: Basic Principles of Marine Spatial Planning (MSP) – Analysis of the institutional framework for marine spatial planning – Examples of MSP in Europe – National-level marine spatial planning – Marine Spatial Planning frameworks – Geopolitics and spatial planning – "Local" geopolitics – Geopolitical dimensions of marine space. The course, within the framework of its broader perspective, aims to develop critical thinking among students regarding issues of maritime spatial planning and geopolitics, preparing them to tackle modern challenges. It seeks to foster an understanding of the relationship between spatial planning, particularly maritime planning, and geopolitical issues. Additionally, it focuses on the connection between spatial planning, developmental policy, and environmental policy, as well as the need to adapt sectoral and environmental policies to spatial needs. Finally, it emphasizes the integration of supranational policies and priorities into spatial planning at the national and macro- regional levels.