COURSE DESCRIPTION

1. GENERAL

SCHOOL	ENVIRONMENT, GEOGRAPHY AND APPLIED ECONOMICS		
DEPARTMENT	GEOGRAPHY		
LEVEL OF COURSE	Undergraduate		
COURSE CODE		**SEMESTER**	7
COURSE TITLE	TOOLS AND TECHNIQUES IN SPATIAL PLANNING		

STRUCTURE OF TEACHING ACTIVITIES	**TEACHING HOURS PER WEEK**	**NUMBER OF CREDITS ALLOCATED (ECTS)**
Lectures and Laboratory Classes	3	5

TYPE OF COURSE	Optional
PREREQUISITES	-
LANGUAGE OF INSTRUCTION	GREEK
COURSE OFFERED TO ERASMUS STUDENTS	No
(URL)	

2. EXPECTED LEARNING OUTCOMES

Learning outcomes

Describe the objectives of the course as well as the expected learning outcomes

The objective of the course Tool and Techniques in Spatial Planning is to familiarize students with models, methods and tools that can be applied in spatial planning. In this context, lectures are delivered that focus on the theoretical aspects of the models and methods proposed, together with applications providing students with the necessary practical experience.

1. The theoretical part consists of the following sections:

- Presentation of systems theory approaches.
- Description of models and their role in spatial planning.
- Analysis of the population projections, e.g. The Rogers' model.
- Economic base models for a region, e.g. Input – Output models.
- Spatial interaction and gravity models.
- Population and employment distribution model, e.g. Lowry's model.
- Integrated Assessment Models (IAMs) and Participatory IAMs (PIAMs).
- Scenario analysis.
- Multicriteria evaluation methodologies, e.g. ELECTRE, REGIME.

2. The applications focus on the implementation of the models and methods that are proposed in theory.

3. COURSE CONTENTS

- Role of systems approach to spatial planning
- Models in spatial planning
- Population projections and economic base models
- Gravity models
- Distribution and spatial analysis models
- Integrated Assessment and Participatory Integrated Assessment Models
- Multicriteria Evaluation Methodologies
- Scenario analysis

4. TEACHING AND ASSESSMENT METHODS

TYPE OF LECTURES	• In class lectures • Laboratory: lectures and applications
ICT USE	Internet use – e-class
TEACHING STRUCTURE	

Activity	*Hours per semester*
Lectures	30
Laboratory - Lectures	9
Exercises	26
Studying – personal work	60
TOTAL	**125**

ASSESSMENT METHODS	Assessment language: Greek Assessment methods: Written examination based on theory course (70%) Submission of applications (30%)

5. RECOMMENDED READING

1. McLoughlin, J. B. (1969). Urban and Regional Planning: A Systems Approach. Faber and Faber.
2. Giaoutzi, M., Stratigea A., (2011), Regional Planning, Theory and Practice, Athens, Kritiki.
3. Grammatikogiannis, E.(2011), Decision Support Systems for Public Participation in Regional Development, Doctoral Thesis, National Technical University, Athens. URI: https://dspace.lib.ntua.gr/xmlui/handle/123456789/5026

http://dx.doi.org/10.26240/heal.ntua.370
4. Mourmouris, I. (2007), Applications of Multicriteria Decision Making Theories, Stamoulis Publications, Athens.