

1.1.1 Transportation Planning

GENERAL

SCHOOL	Engineering		
ACADEMIC UNIT	CIVIL ENGINEERING		
LEVEL OF STUDIES	Undergraduate		
COURSE CODE	ΣΥΓ008	SEMESTER	7th
COURSE TITLE	Transportation Planning		
INDEPENDENT TEACHING ACTIVITIES <i>if credits are awarded for separate components of the course, e.g. lectures, laboratory exercises, etc. If the credits are awarded for the whole of the course, give the weekly teaching hours and the total credits</i>	WEEKLY TEACHING HOURS	CREDITS	
	4	5	
<i>Add rows if necessary. The organisation of teaching and the teaching methods used are described in detail at (d).</i>			
COURSE TYPE <i>general background, special background, specialised general knowledge, skills development</i>	Specialization Course		
PREREQUISITE COURSES:			
LANGUAGE OF INSTRUCTION and EXAMINATIONS:	Greek		
IS THE COURSE OFFERED TO ERASMUS STUDENTS	No		
COURSE WEBSITE (URL)			

LEARNING OUTCOMES

<p>Learning outcomes</p> <p><i>The course learning outcomes, specific knowledge, skills and competences of an appropriate level, which the students will acquire with the successful completion of the course are described.</i></p> <p>Consult Appendix A</p> <ul style="list-style-type: none"> • Description of the level of learning outcomes for each qualifications cycle, according to the Qualifications Framework of the European Higher Education Area • Descriptors for Levels 6, 7 & 8 of the European Qualifications Framework for Lifelong Learning and Appendix B • Guidelines for writing Learning Outcomes 												
<p>Upon successful completion of the course, the student will be able to:</p> <ul style="list-style-type: none"> • assess the traffic impacts expected to arise from the implementation of transportation projects and the implementation of transport policies. • take into account the above elements in the design of transportation systems, within the framework of decision-making processes. 												
<p>General Competences</p> <p><i>Taking into consideration the general competences that the degree-holder must acquire (as these appear in the Diploma Supplement and appear below), at which of the following does the course aim?</i></p> <table style="width: 100%; border: none;"> <tr> <td style="width: 50%; border: none;"> <i>Search for, analysis and synthesis of data and information, with the use of the necessary technology</i> </td> <td style="width: 50%; border: none;"> <i>Project planning and management</i> </td> </tr> <tr> <td style="border: none;"> <i>Adapting to new situations</i> </td> <td style="border: none;"> <i>Respect for difference and multiculturalism</i> </td> </tr> <tr> <td style="border: none;"> <i>Decision-making</i> </td> <td style="border: none;"> <i>Respect for the natural environment</i> </td> </tr> <tr> <td style="border: none;"> <i>Working independently</i> </td> <td style="border: none;"> <i>Showing social, professional and ethical responsibility and sensitivity to gender issues</i> </td> </tr> <tr> <td style="border: none;"> <i>Team work</i> </td> <td style="border: none;"> <i>Criticism and self-criticism</i> </td> </tr> <tr> <td style="border: none;"> <i>Working in an international environment</i> </td> <td style="border: none;"> <i>Production of free, creative and inductive thinking</i> </td> </tr> </table>	<i>Search for, analysis and synthesis of data and information, with the use of the necessary technology</i>	<i>Project planning and management</i>	<i>Adapting to new situations</i>	<i>Respect for difference and multiculturalism</i>	<i>Decision-making</i>	<i>Respect for the natural environment</i>	<i>Working independently</i>	<i>Showing social, professional and ethical responsibility and sensitivity to gender issues</i>	<i>Team work</i>	<i>Criticism and self-criticism</i>	<i>Working in an international environment</i>	<i>Production of free, creative and inductive thinking</i>
<i>Search for, analysis and synthesis of data and information, with the use of the necessary technology</i>	<i>Project planning and management</i>											
<i>Adapting to new situations</i>	<i>Respect for difference and multiculturalism</i>											
<i>Decision-making</i>	<i>Respect for the natural environment</i>											
<i>Working independently</i>	<i>Showing social, professional and ethical responsibility and sensitivity to gender issues</i>											
<i>Team work</i>	<i>Criticism and self-criticism</i>											
<i>Working in an international environment</i>	<i>Production of free, creative and inductive thinking</i>											

Working in an interdisciplinary environment
Production of new research ideas

.....
Others...
.....

The course contributes in the acquisition of the following skills:

- Investigation, analysis and synthesis of data and information, with the use of appropriate technologies
- Adaptation to new conditions
- Decision making
- Project planning and management
- Natural environment preservation

SYLLABUS

Course lecture content:

- Transportation system. Procedures and stakeholders. Types and subjects of studies in the field of transport.
- Transport planning concepts. Principles and relations of traffic flow, speed and density and other parameters.
- Sampling.
- Data collection and processing methodology.
- Models in transport planning and their statistical evaluation.
- Trip Generation
- Trip Distribution
- Modal split
- Disaggregated behavioral models.
- Network trip assignment

TEACHING and LEARNING METHODS - EVALUATION

<p>DELIVERY <i>Face-to-face, Distance learning, etc.</i></p>	Face to face.	
<p>USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY <i>Use of ICT in teaching, laboratory education, communication with students</i></p>	<ul style="list-style-type: none"> • Lectures Presentation using laptop and video projector or remotely, e-lecture if required. • Learning process support through the electronic e-learning platform. • Distance meetings between teacher and students for collaboration outside of class (via a digital platform, e.g. ZOOM, Skype). • Posting announcements on the Department's website and on the online page of the course within the electronic e-learning platform. • Teacher and student communication via email. • Student evaluation 	
<p>TEACHING METHODS <i>The manner and methods of teaching are described in detail. Lectures, seminars, laboratory practice, fieldwork, study and analysis of bibliography, tutorials, placements, clinical practice, art workshop, interactive teaching, educational visits, project, essay writing, artistic creativity, etc.</i></p> <p><i>The student's study hours for each learning activity are given as well as the hours of non-directed study according to the principles of the ECTS</i></p>	<p>Activity</p>	<p>Semester workload</p>
	Lectures	52
	Individual study	48
	Practice/exercises	30
	Course total (26 hours workload per ECTS credit)	130

<p>STUDENT PERFORMANCE EVALUATION</p> <p><i>Description of the evaluation procedure</i></p> <p><i>Language of evaluation, methods of evaluation, summative or conclusive, multiple choice questionnaires, short-answer questions, open-ended questions, problem solving, written work, essay/report, oral examination, public presentation, laboratory work, clinical examination of patient, art interpretation, other</i></p> <p><i>Specifically-defined evaluation criteria are given, and if and where they are accessible to students.</i></p>	<p>Final written exam including:</p> <ul style="list-style-type: none"> • Theory questions • Exercises solving <p>The evaluation criteria are communicated to the students in the first lecture of the course. Also, each student is given the opportunity to check their writing and have their mistakes analyzed.</p>
--	---

ATTACHED BIBLIOGRAPHY

- _Stathopoulos A.G., Karlaftis M., (2016). Transportation Systems Planning. Ed. PAPASOTIRIOU, ISBN: 978-960-491-101-1 [In Greek].
- _Frantseskakis, I.M., Giannopoulos, G.A. (2005). Transportation Planning and Traffic Engineering. Epikentro Publications SA, ISBN: 978-960-6647-20-8 [In Greek].