ECTS

(B) Course information in english

General course information:

Course title:	Transportation planning	**Course code:**	CE05-T05
Credits:	5	**Work load (hours):**	125
Course level:	Undergraduate ☑	Graduate ☐	
Course type:	Mandatory ☑	Selective ☐	
Course category:	Basic ☑	Orientation ☐	
Semester:	5th	**Hours per week:**	4

Course objectives (capabilities pursued and learning results):

- Estimation of traffic impacts of transportation projects and policies.
- Decision making in the domain of transportation engineering and planning

Prerequisites:

Knowledge of basic concepts of traffic flow theory, and statistical analysis.

Instructor's data:

Name:	Eftihia Nathanail
Level:	Assistant professor
Office:	Civil Engineering Faculty (A12) University of Thessaly Pedion Areos, 38334 Bolos, Greece
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Other tutors:	-

Specific course information:

Week No.	Course contents	Hours	
		Course attendance	Preparation
1	Introduction. The transportation system. Processes and stakeholders. Types and objectives of relative studies in the domain of transportation.	4	1
2	Transportation planning processes. Concepts and relations of traffic flow, speed, density and other parameters.	4	3
3	Sampling	4	3
4	Data collection and processing methods	4	3
5	Transportation planning and modeling. Statistical analysis.	4	3
6	Trip generation	4	4
7	Trip distribution	4	4
8	Modal split	4	4
9	Disaggregate travel behavioral modeling	4	4
10	Traffic assignment	4	3
11	Auto assignment	4	3
12	Auto assignment using transportation planning software	4	2
13	Transit assignment	4	3
14	Transit assignment using transportation planning software	4	2

Additional hours for:			
Class project	**Examinations**	**Preparation for examinations**	**Educational visit**
24		16	

Suggested literature:

- Α. Σταθόπουλος, Μ. Καρλαύτης, Σχεδιασμός Μεταφορικών Συστημάτων, Παπασωτηρίου, Αθήνα 2008.
- Trip generation, Institute of Transportation Engineers ITE, 2000.
- R. Stopher, and A. H. Meyburg, Urban Transportation Modeling and Planning, Lexington Books, 1975.
- B. G. Hutchinson, Principles of Urban Transport Systems Planning, McGraw Hill, 1974.
- J. de D. Ortuzar, and L. G. Willumsen, Modelling Transport, J. Wiley & Sons, 2001
- N. Oppenheim, Urban Travel Demand Modeling, J. Wiley & Sons, 1995.
- Travel Behaviour Research, The International Association for Travel Behaviour, 1987.
- A. Richardson, E. Ampt, and A. Meyburg, Survey Methods for Transport Planning, Eucalyptus Press, 1995.
- PETER STOPHER & MARTIN LEE-GOSSELIN , UNDERSTANDING TRAVEL BEHAVIOUR IN AN ERA OF CHANGE, PERGAMON, 1997.
- DENOS C. GAZIS, TRAFFIC THEORY, KLUWER ACADEMIC PUBLISHERS, 2002.
- DAVID A. HENSHER, KENNETH J. BUTTON, HANDBOOK OF TRANSPORT MODELLING, PERGAMON, 2000.

Teaching method *(select and describe if necessary* - **weight***):*		
Teaching	☑	60%
Seminars	☐	……%
Demonstrations	☐	……%
Laboratory	☑	20%
Exercises	☑	20%
Visits at facilities	☐	……%
Other *(describe):* ……	☐	……%
Total		100%

Evaluation method *(select)*- **weight:**				
	written	*%*	*Oral*	*%*
Homework	☑	30	☐	
Class project	☑	30	☑	10
Interim examination	☐		☐	
Final examinations	☑	30	☐	
Other *(describe):* ……	☐		☐	