(B) Course information in english

General course information:

Course title:	Traffic Engineering	Course code:		CE04_T01	
Credits:	5	**Work load (hours):**		150	
Course level:	Undergraduate	☑	Graduate	☐	
Course type:	Mandatory	☑	Selective		☐
Course category:	Basic	☑	Orientation		☐
Semester:	4	**Hours per week:**		4	
Course objectives (capabilities pursued and learning results):					
Basic concepts of transportation engineering. Traffic flow theory. Capacity and level of service. Methods for estimating capacity.					
Prerequisites:					

Instructor's data:

Name:	Pantelis Kopelias
Level:	Assistant Professor
Office:	1st Floor, Building of Civil. Eng.
Tel. – email:	+30 24210 74165, kopelias@uth.gr

Specific course information:

Week No.	Course contents	Hours	
		Course attendance	Preparation
1	Introduction to traffic engineering. The transportation system.	4	3
2	Basic Traffic characteristics and parameters: traffic volume, speed, density. Fundamental diagrams	4	3
3	Basic concept of Queue theory. Traffic analysis and Data Bases. Counting Traffic.	4	3
4	Capacity, Level of Service, Interrupted and non-interrupted flow	4	3
5	Unsignalized intersections	4	3
6	Two-lane highways	4	3
7	Multilane highways	4	3
8	Freeway segments	4	3
9	Freeway weaving	4	3
10	Ramps and ramp junctions	4	3
11-12	Signalized Intersection	8	6
13	Traffic light coordination and traffic light control	4	3
14	Traffic caracteristics counts. Methods and equipment	4	2

Additional hours for:			
Class project	Examinations	Preparation for examinations	Educational visit
20	3	27	-

Suggested literature:
- Κυκλοφοριακή τεχνική, Ι. Μ. Φραντζεσκάκης, Ι. Κ. Γκόλιας, Μαγδαληνή Χ. Πιτσιάβα – Λατινοπούλου, Παπασωτηρίου, 2009.   - Highway Capacity Manual 2010, Transportation Research Board,

National Research Council, Washington D.C. 2010.

- Traffic Engineering Handbook, Institute of Transportation Engineers ITE, 2000.

Teaching method *(select and describe if necessary -* **weight***):*

Teaching	☑	80%
Seminars	☐	……….%
Demonstrations	☐	……….%
Laboratory	☐	……….%
Exercises	☑	20%
Visits at facilities	☐	……….%
Other *(describe):* ………………………..	☑	
Total		100%

Evaluation method *(select)-* **weight:**

	written	*%*	*Oral*	*%*
Homework	☑		☐	
Class project	☑	20	☐	
Interim examination	☐		☐	
Final examinations	☑	80	☐	
Other *(describe):* ………………………..	☐		☐	