General course information:

Course title:	Road safety	**Course code:**	CE10_T04
Credits:	5	**Work load (hours):**	115
Course level:	Undergraduate ☑	Graduate ☐	
Course type:	Mandatory ☑	Selective ☐	
Course category:	Basic ☐	Orientation ☑	
Semester:	10th	**Hours per week:**	4
Course objectives (capabilities pursued and learning results):			
Basic principles and definitions. Road safety organizations in Greece and abroad. Legislation framework. Road accident data collection procedures. Road accident data sources. Methods for road accident data processing and analysis. Road accident - macroscopic analysis. Measures for improvement of safety level at urban and interurban road network. The use of Geographic Information Systems in road safety. Relation between road accidents and road users' characteristics, road, traffic, environment and vehicle. Road safety evaluation studies.			
Prerequisites:			
Statistical analysis. Experimental design.			

Instructor's data:

Name:	Eftihia Nathanail
Level:	Assistant professor
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Other tutors:	-

Specific course information:

Week No.	**Course contents**	**Hours**	
		Course attendance	**Preparation**
1	Introduction to road safety. Statistics on road safety.	4	1
2	Data collection methods and databases	4	2
3	Road safety studies	4	1

4	Identification of black spots	4	3
5	Analysis of isolated accidents	4	2
6	Road safety and the users	4	2
7	Influencing user behavior. Education. Safety campaigns. Theoretical models for behavioral change.	4	3
8	Experimental methods in behavioral changing analysis	4	4
9	Road safety and the vehicles. In-vehicle innovative technological solutions.	4	2
10	Road safety, the road and the environment	4	2
11	Improving road safety at black spots	4	3
12	Evaluation of improvements performance	4	3
13	Incident management	4	3
14	Dangerous goods transportation on road network	4	3

Additional hours for:			
Class project	**Examinations**	**Preparation for examinations**	**Educational visit**
15	2	4	4

Suggested literature:

- Ι. Φραντζεσκάκης, Ι. Γκόλιας, Οδική Ασφάλεια, Παπασωτηρίου 1994
- MARC GAUDRY, SYLVAIN LASSARRE, STRUCTURAL ROAD ACCIDENT MODELS, PERGAMON, 2000
- KAAN OZBAY, PUSHKIN KACHROO, INCIDENT MANAGEMENT INTELLIGENT TRANSPORTATION SYSTEMS, 1999
- William R.,Shadish, Thomas D.,Cook, Donald T.,Campbell, Experimental and Quasi-experimental Designs for Generalised Causal Inference, Houghton Mifflin Co, 2001
- Brian,Everitt, A Handbook of Statistical Analyses Using Spss, Taylor & Francis Ltd, 2003
- Glenn,Gamst, Lawrence S.,Meyers, A. J.,Guarino, Analysis of Variance Designs, Cambridge University Press, 2008Peter L.,Bonate, Analysis of Pre-Test-Post-Test Designs, Taylor & Francis Ltd, 2000

Teaching method *(select and describe if necessary* - **weight***):*		
Teaching	☑	70%
Seminars	☐	…….%
Demonstrations	☐	…….%
Laboratory	☐	…….%
Exercises	☑	20%
Visits at facilities	☑	10%
Other *(describe):* …….	☐	…….%
Total		100%

Evaluation method *(select)*- **weight:**				
	written	*%*	*Oral*	*%*
Homework	☐		☐	
Class project	☑	30	☑	10
Interim examination	☑	20	☐	
Final examinations	☑	40	☐	
Other *(describe):* ……	☐		☐	