Course information in english

General course information:

Course title:	Special Topics in Highway Engineering	Course code:	CE09-T08
Credits:	6	Work load (hours):	125

Course level:	Undergraduate ☒	Graduate ☐
Course type:	Mandatory ☐	Selective ☒
Course category:	Basic ☐	Orientation ☒
Semester:	9	Hours per week: 4

Course objectives (capabilities pursued and learning results):
Computer Aided Road Design Principles of Intersections at Grade and Interchanges. Road Signing Infrastructure. Road Restraint Systems. Principles of Road Safety Audits
Prerequisites:
Highway Engineering I & II CAD. Computer Aided Design. Surveying

Instructor's data:

Name:	Nikolaos Hliou Professor
Level:	
Office:	
Tel. – email:	2421074150 - neliou@civ.uth.gr
Other tutors:	+ Kaliabetsos G., Scientif Assistant

Specific course information:

Week No.	Course contents	Hours	
		Course attendance	Preparation
1	The Use of Computers in Road Project Design.	4	1
2	C.A.D. and G.I.S. applications in design.	4	1
3	Digital Terrain Models.	4	1
4	Road Projects Design Software	4	3
5	Road Projects Design Software	4	3
6	Road Projects Design Software	4	3
7	Road Projects Design Software	4	1
8	Basics on Junctions Design	4	1
9	Basics on Interchanges Design.	4	1
10	Special topics of Road Infrastructure Design.	4	1
11	Road Restraint Systems.	4	1
12	Road Infrastructure Design at Work zones.	4	1
13	Road Safety Audit Procedures	4	1
14	Road Safety Audit Procedures	4	1

Additional hours for:			
Class project	Examinations	Preparation for examinations	Educational visit
49		0	

Suggested literature:
• "Richtlinien fur die Anlage von Strassen. Elemente der linienfuhrung" RAS-L-1, 1984.   • AASHTO "Geometric Design of Highways and Streets "2004   • OMOE (National Road Design Guidelines)   • HIGHWAY DESIGN, Theory & Practice (A. Apostoleris)   • Highway Design & Construction Henning Natzschka

- Handbook of Road Technology, Fourth Edition M. G. Lay, 2009
- Handbook of Road Safety Measures 2nd Edition Rune Elvik et all.
- Roundabouts. An informational Guide 2nd Edition 2010 NCHRP rep. 672

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

Teaching	☒	50 %
Seminars	☐	……….%
Demonstrations	☐	……….%
Laboratory	☒	30 %
Exercises	☒	20 %
Visits at facilities	☐	……….%
Other *(describe):* ……………………..	☐	……….%
Total		100%

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

	written	*%*	*Oral*	*%*
Homework	☒	30	☒	10
Class project	☐		☒	60
Interim examination	☐		☐	
Final examinations	☐		☐	
Other *(describe):* ………………………	☐		☐	