

Course information in english

General course information:

Course title:	Road Operations and Traffic Management	Course code:	ΣY0910
Credits:	5	Work load (hours):	142
Course level:	Undergraduate <input checked="" type="checkbox"/>	Graduate	<input type="checkbox"/>
Course type:	Mandatory <input checked="" type="checkbox"/>	Selective	<input type="checkbox"/>
Course category:	Basic <input type="checkbox"/>	Orientation	<input checked="" type="checkbox"/>
Semester:	8	Hours per week:	4 hours
Course objectives (capabilities pursued and learning results):			
<ul style="list-style-type: none">• Asset Management• Traffic Management Techniques• Incident Management• ITS equipment and Active Traffic Management• Congestion Management• Demand management• ADAS Systems• Parking Management			
Prerequisites:			
<ul style="list-style-type: none">• Pavement engineering and construction• Highway design and Engineering• Economics			

Instructor's data:

Name:	Pantelis Kopelias
Level:	Assistant Professor
Office:	
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Other tutors:	

Specific course information:

Week No.	Course contents	Hours	
		Course attendance	Preparation
1	Road Operations and Traffic Management. Basic Concept and goals	4	
2	Asset Management- Traffic Operations in urban and interurban roads	4	2
3	Institutional framework in Greece. Responsibilities. Concessions, Municipalities and Regions	4	2
4	Review of traffic flow theory and queue theory	4	4
5	ITS, road and traffic monitoring. Information systems	4	2
6	Traffic Management Centers	4	
7	Congestion Management, Active Traffic Management techniques	4	2
8	Incident Management	4	4
9	Special Events Management	4	2
10	Demand management – Congestion Pricing. PT vs cars	4	2
11	Parking Management	4	2
12	Environmental Management and Road Operations	4	
13	Inspections and Maintenance. Procedure, Types, indexes. Intervention planning	4	2
14	Economic Methods of Road and Traffic Management	4	4

Additional hours for:			
Class project	Examinations	Preparation for examinations	Educational visit
25	3	30	(alternative to lecture #13)

Suggested literature:

- «Management of roads and road construction», A.K. Mouratides, University Studio Press, 2008
- Traffic Flow Technics, Fratzeskakis, Golias, Pitsiava, Papasotiriou 2009
- Highway Capacity Manual (2010), Transportation Research Board, USA
- NHTSA (2008) Freeway Operations Handbook
- NHTSA (2013) Active Traffic Management for Arterials
- Tutor's notes

Teaching method (<i>select and describe if necessary - weight</i>):		
Teaching	*	...70...%
Seminars	<input type="checkbox"/>%
Demonstrations	<input type="checkbox"/>%
Laboratory	<input type="checkbox"/>%
Exercises	*	...30...%
Visits at facilities	*%
Other (<i>describe</i>):	<input type="checkbox"/>%
Total		100%

Evaluation method (<i>select</i>)- weight:				
	<u>written</u>	<u>%</u>	<u>Oral</u>	<u>%</u>
Homework	<input type="checkbox"/>		<input type="checkbox"/>	
Class project	*	20	<input type="checkbox"/>	
Interim examination	<input type="checkbox"/>		<input type="checkbox"/>	
Final examinations	*	80	<input type="checkbox"/>	
Other (<i>describe</i>):	<input type="checkbox"/>		<input type="checkbox"/>	