COURSE OUTLINE

(1) GENERAL

SCHOOL	School of Engineering		
ACADEMIC UNIT	Department of Planning and Regional Development – Department of Civil Engineering		
LEVEL OF STUDIES	Postgraduate		
COURSE CODE	MCC205	SEMESTER	Spring
COURSE TITLE	Infrastructure design and management, road safety		

INDEPENDENT TEACHING ACTIVITIES *if credits are awarded for separate components of the course, e.g. lectures, laboratory exercises, etc. If the credits are awarded for the whole of the course, give the weekly teaching hours and the total credits*	WEEKLY TEACHING HOURS	CREDITS
	3	7,5

COURSE TYPE *general background, special background, specialised general knowledge, skills development*	Specialization
PREREQUISITE COURSES:	-
LANGUAGE OF INSTRUCTION and EXAMINATIONS:	Greek
IS THE COURSE OFFERED TO ERASMUS STUDENTS	Yes (when Erasmus students are enrolled)
COURSE WEBSITE (URL)	https://pmtspmaster.uth.gr/courses/schediasmos-kai-diacheirisi-ypodomon-odiki-asfaleia-kai-asfaleia-ergotaxion/

(2) LEARNING OUTCOMES

Learning outcomes

The course learning outcomes, specific knowledge, skills and competences of an appropriate level, which the students will acquire with the successful completion of the course are described.

Consult Appendix A

- *Description of the level of learning outcomes for each qualifications cycle, according to the Qualifications Framework of the European Higher Education Area*
- *Descriptors for Levels 6, 7 & 8 of the European Qualifications Framework for Lifelong Learning and Appendix B*
- *Guidelines for writing Learning Outcomes*

Upon successful completion of the course, students will be able to:

1. Identify and use the appropriate design standards, regulations, and guidelines for infrastructure planning and management.
2. Select the most suitable European and international standards when national standards are unavailable.
3. Understand key concepts of Road Safety Management.
4. Design and implement complex transportation projects and shape policies focused on safety.

General Competences

Taking into consideration the general competences that the degree-holder must acquire (as these appear in the Diploma Supplement and appear below), at which of the following does the course aim?

Search for, analysis and synthesis of data and information, with the use of the necessary technology	*Project planning and management*
Adapting to new situations	*Respect for difference and multiculturalism*
Decision-making	*Respect for the natural environment*
Working independently	*Showing social, professional and ethical responsibility and sensitivity to gender issues*
Team work	*Criticism and self-criticism*
Working in an international environment	*Production of free, creative and inductive thinking*
Working in an interdisciplinary environment	*……*
Production of new research ideas	*Others…*

.....
The general competences that students are expected to develop through this course focus on fostering creative and inductive thinking, through the exploration of design and implementation possibilities for vehicle restraint systems and road safety control procedures.

(3) SYLLABUS

The main course content includes the following sections: 1. Road infrastructure design principles 2. Design of transport projects. 3. The concept of road safety and safe system approach 4. Road safety control and management procedures for long-distance infrastructure (safety audits) 5. Safe pedestrian and cyclist infrastructure in urban environments 6. Design of complex transport infrastructure such as junctions, roundabouts, roundabouts, on-grade junctions and their contribution to road safety 7. Design of side space. Vehicle Interception Systems - European Standard EN 1317-OMOE- SAO Directive

(4) TEACHING and LEARNING METHODS - EVALUATION

DELIVERY *Face-to-face, Distance learning, etc.*	Distance learning
USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY *Use of ICT in teaching, laboratory education, communication with students*	Computers are used during the lectures of the course, but also in communication with the students. They are used in delivering Power Point lectures, presenting related slides, videos and instructional CDs and providing statistical material and bibliography for the needs of the course and the work being done.
TEACHING METHODS *The manner and methods of teaching are described in detail.* *Lectures, seminars, laboratory practice, fieldwork, study and analysis of bibliography, tutorials, placements, clinical practice, art workshop, interactive teaching, educational visits, project, essay writing, artistic creativity, etc.* *The student's study hours for each learning activity are given as well as the hours of non-directed study according to the principles of the ECTS*	

Activity	*Semester workload*
Lectures	39
Literature review	50
Tutorials	18,5
Assignment writing	80
Course total	***187,5***

STUDENT PERFORMANCE EVALUATION

Description of the evaluation procedure

Language of evaluation, methods of evaluation, summative or conclusive, multiple choice questionnaires, short-answer questions, open-ended questions, problem solving, written work, essay/report, oral examination, public presentation, laboratory work, clinical examination of patient, art interpretation, other

Specifically-defined evaluation criteria are given, and if and where they are accessible to students.

Activity	*Semester Workload (h)*
Teaching	*39*
Study & analysis of literature	50
Tutorial	18,5
Homework writing	80
Total	*187,5*

Evaluation process	*Yes/No*
Language	Greek
Problem solving	Yes
Written work	Yes
Oral presentation	Yes

Specified evaluation criteria	*Determination of weight*
Understanding concepts	25%
Use of theories and methods	25%

	Applying theories and methodologies to problems solving	25%
	Problem-solving speed	25%
	The evaluation criteria used are linked to the learning outcomes, since the students' ability to show their knowledge and depth of understanding of the core content of the course is indirectly assessed. The assessment system and criteria are familiar to the students, and they are considered sufficient to reflect the degree of understanding of the course and in-depth knowledge of its content. The examination process is evaluated indirectly, since the students are asked to express their opinion after the end of the examinations, while the students can see their writing if they wish.	

(5) ATTACHED BIBLIOGRAPHY

- Suggested bibliography:

1. *EN-1317 European Norm*
2. *EN 1317 Part 1: Terminology and general criteria for test methods*
3. *EN 1317 Part 2: Performance classes, impact test acceptance criteria and test methods for safety barriers and vehicle parapets*
4. *EN 1317 Part 3: Performance classes, impact test acceptance criteria and test methods for crash cushions*
5. *ENV 1317 Part 4: Performance classes, impact test acceptance criteria and test methods for terminals and transitions of safety barriers **
6. *EN 1317 Part 5: Product requirements and evaluation of conformity for vehicle restraint systems*
7. *TR 1317 Part 6: Pedestrian parapets*
8. *TS 1317 Part 8: Motorcycle road restraint systems which reduce the impact severity of motorcyclist collisions with safety barriers*
9. *Guide to Road Safety Part 6: Road Safety Audit. Austroads 2009.*
10. *DESIGN MANUAL FOR ROADS AND BRIDGES, HD 19/03 - ROAD SAFETY*