1.1.1 Urban Transport Systems

GENERAL

SCHOOL	Engineering		
ACADEMIC UNIT	CIVIL ENGINEERING		
LEVEL OF STUDIES	Undergraduate		
COURSE CODE	ΣΥΓ009	**SEMESTER**	7th
COURSE TITLE	Urban Transport Systems		

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**
	4	5
Add rows if necessary. The organisation of teaching and the teaching methods used are described in detail at (d).		

COURSE TYPE *general background, special background, specialised general knowledge, skills development*	Specialization Course
PREREQUISITE COURSES:	
LANGUAGE OF INSTRUCTION and EXAMINATIONS:	Greek
IS THE COURSE OFFERED TO ERASMUS STUDENTS	No
COURSE WEBSITE (URL)	

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, the student will be able to:

- Understand the principles of design, study, evaluation, and operation of Mass Transportation Systems.
- Understand the principles of an urban freight transport system.
- Design an urban transportation system taking into account the principles of a sustainable mobility system.

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
Adapting to new situations
Decision-making
Working independently
Project planning and management
Respect for difference and multiculturalism
Respect for the natural environment
Showing social, professional and ethical responsibility and sensitivity to gender issues

Team work *Working in an international environment* *Working in an interdisciplinary environment* *Production of new research ideas*	*Criticism and self-criticism* *Production of free, creative and inductive thinking* *……* *Others…* *…….*

The course contributes to the acquisition of the following skills:
- Search, analysis and synthesis of data and information, using the necessary technologies
- Adaptation to new conditions
- Decision making
- Project planning and management
- Natural environment preservation

SYLLABUS

Course lecture content:
- Public Transportation.
- Integrated Combined Urban Transport Systems.
- Urban passenger bus lines.
- Urban bus line design.
- Bus lanes and special lanes for the exclusive use of buses.
- Bus priority measures in mixed traffic conditions.
- Improvement and promotion of Mass Transportation.
- Fixed track mass transit systems.
- Urban freight transport.

TEACHING and LEARNING METHODS - EVALUATION

DELIVERY *Face-to-face, Distance learning, etc.*	Face to face.
USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY *Use of ICT in teaching, laboratory education, communication with students*	• Lectures Presentation using laptop and video projector or remotely, e-lecture if required. • Learning process support through the electronic e-learning platform. • Distance meetings between teacher and students for collaboration outside of class (via a digital platform, e.g. ZOOM, Skype). • Posting announcements on the Department's website and on the online page of the course within the electronic e-learning platform. • Teacher and student communication via email. • Student evaluation
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*	
STUDENT PERFORMANCE EVALUATION *Description of the evaluation procedure*	Final written exam including: • Theory questions

Activity	***Semester workload***
Lectures	52
Individual study	30
Project(s)	48
Course total (26 hours workload per ECTS credit)	***130***

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.*	• Compulsory individual project with oral presentation in class The evaluation criteria are communicated to the students in the first lecture of the course. Also, each student is given the opportunity to check their graded sheet and have their performance analyzed.

ATTACHED BIBLIOGRAPHY

_Gavanas, N., Papaioannou, P., Pichiava-Latinopoulou, M., Politis, I. (2016). Urban transport networks and mobility management. Greek Academic Electronic Books and Aids - "Kallipos" Repository, ISBN: 978-960-603-155-7 [In Greek].

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_Sussman J., (eds) Schinas, O., Papadimitriou, E. (2003). Introduction to Transportation Systems, Ed. Stamouli SA, ISBN: 960-351-395-4 [In Greek].

_Taniguchi, E., Thompson, R.G. (2018). City Logistics 1: New Opportunities and Challenges. Wiley-ISTE, HEAL-Link Wiley UBCM ebooks, ISBN: 9781119425519.