

1.1.1 Transport Economics

GENERAL

SCHOOL	Engineering		
ACADEMIC UNIT	CIVIL ENGINEERING		
LEVEL OF STUDIES	Undergraduate		
COURSE CODE	ΣΥΦ010	SEMESTER	7th
COURSE TITLE	Transport Economics		
INDEPENDENT TEACHING ACTIVITIES <i>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</i>	WEEKLY TEACHING HOURS	CREDITS	
	4	5	
<i>Add rows if necessary. The organisation of teaching and the teaching methods used are described in detail at (d).</i>			
COURSE TYPE <i>general background, special background, specialised general knowledge, skills development</i>	Specialization Course		
PREREQUISITE COURSES:			
LANGUAGE OF INSTRUCTION and EXAMINATIONS:	Greek		
IS THE COURSE OFFERED TO ERASMUS STUDENTS	No		
COURSE WEBSITE (URL)			

LEARNING OUTCOMES

<p>Learning outcomes <i>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.</i></p> <p><i>Consult Appendix A</i></p> <ul style="list-style-type: none"> • <i>Description of the level of learning outcomes for each qualifications cycle, according to the Qualifications Framework of the European Higher Education Area</i> • <i>Descriptors for Levels 6, 7 & 8 of the European Qualifications Framework for Lifelong Learning and Appendix B</i> • <i>Guidelines for writing Learning Outcomes</i> <p>Upon completing this course students should be able to collect data and classify construction and cash flows of a transportation system or enterprise, combine the above data to predict cost elements necessary for the construction or improvement of a transportation system or enterprise, implement this knowledge for determining the financial demands for the foundation and operation of transportation system or enterprise, to assess the efficiency of the invested funds, analyze the components and operations of transportation system or enterprise, to clarify, to classify and prioritize the, according to cost and criteria of function, compose the sum of individual cost estimates into a single framework of cash flow, anticipating future changes, running parallel with alternative scenarios, evaluate, justify and argue for the best investment in a of transportation system or enterprise, taking into account socio-economic, technical and environmental criteria.</p>
<p>General Competences <i>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?</i></p> <p><i>Search for, analysis and synthesis of data and</i> <i>Project planning and management</i></p>

<i>information, with the use of the necessary technology</i> <i>Adapting to new situations</i> <i>Decision-making</i> <i>Working independently</i> <i>Team work</i> <i>Working in an international environment</i> <i>Working in an interdisciplinary environment</i> <i>Production of new research ideas</i>	<i>Respect for difference and multiculturalism</i> <i>Respect for the natural environment</i> <i>Showing social, professional and ethical responsibility and sensitivity to gender issues</i> <i>Criticism and self-criticism</i> <i>Production of free, creative and inductive thinking</i> <i>.....</i> <i>Others...</i> <i>.....</i>
<p>The course contributes to the following skills:</p> <ul style="list-style-type: none"> _Search for, analysis and synthesis of data and information, with the use of the necessary technology _Adapting to new situations _Decision-making _Project planning and management _Respect for the natural environment. 	

SYLLABUS

Transportation and financial activities, transport systems, road, railway, air and maritime transport, transportation enterprises, effects of globalization, state monopolies, liberalization, privatization, elasticities, normal, inelastic and derivative demand, financial planning and accounting analysis of transport companies, construction and operational cost, combined transportation systems, logistics in freight transport, definition and characteristics of transport demand forecasting models, assessment of the predictive capability of a model, targets of the commercial policies of transport companies, public service obligations, pricing policies of transport companies, evaluation methods of transportation projects, sensitivity and risk analysis, multi-criteria and financial analyses of transportation projects, public-private partnership for the construction of transportation projects, transportation companies in Greece.

TEACHING and LEARNING METHODS - EVALUATION

DELIVERY <i>Face-to-face, Distance learning, etc.</i>	Face to face.	
USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY <i>Use of ICT in teaching, laboratory education, communication with students</i>	Powerpoint presentations, e-learning platform for educational material	
TEACHING METHODS <i>The manner and methods of teaching are described in detail.</i> <i>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.</i> <i>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</i>	Activity	Semester workload
	Lectures	52
	Individual study	78
	Course total (26 hours workload per ECTS credit)	130
STUDENT PERFORMANCE EVALUATION <i>Description of the evaluation procedure</i> <i>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</i>	<p>Final written exam (100%) which includes:</p> <ul style="list-style-type: none"> - Open ended questions - Problem solving questions (exercises) <p>The evaluation criteria are presented in the 1st lecture of the semester to all students. Furthermore, each student can</p>	

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.

see his graded exam/ written assignment paper and talk on the analysis of his written performance with the professor.

ATTACHED BIBLIOGRAPHY

- [in Greek] Μουρμούρης, Ι.Κ. (2006). Οικονομική των Μεταφορών - Ανάπτυξη, Επένδυση, Διοίκηση Εφαρμογές. ΕΚΔΟΣΕΙΣ ΣΤΑΜΟΥΛΗ ΑΕ, ISBN: 960-351-671-6.
- [in Greek] Προφυλλίδης, Β. (2016). Οικονομική των Μεταφορών. Α. ΠΑΠΑΣΩΤΗΡΙΟΥ ΣΙΑ Ι.Κ.Ε., ISBN: 978-960-491-100-4.
- [in Greek] Σαμπράκος, Ε. (2018). Οικονομική των Μεταφορών. Εκδόσεις Βαρβαρήγου, ISBN: 978-960-7996-75-6.
- [in Greek] Boyer K.D. (2005). Οικονομική των Μεταφορών. Γ.ΠΑΡΙΚΟΣ ΣΙΑ ΕΕ, ISBN: 978-960-286- 754-9.
- Prassas, E.S., Roess, R.P. (2013). Engineering Economics and Finance for Transportation Infrastructure. Springer Berlin Heidelberg, HEAL-Link Springer ebooks, ISBN: 978-3-642-38580-3.
- Profillidis, V.A., Botzoris, G.N., Galanis, A.T. (2014). Environmental Effects and Externalities from the Transport Sector and Sustainable Transportation Planning - A Review. International Journal of Energy Economics and Policy, 4(4), 647-661.