

COURSE OUTLINE

(1) GENERAL

SCHOOL	School of Economics and Management Science		
ACADEMIC UNIT	Department of Economics		
LEVEL OF STUDIES	6		
COURSE CODE	207	SEMESTER	2nd
COURSE TITLE	Data Management and Databases		
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	7,5	
<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>	General background, skills development		
PREREQUISITE COURSES:	No		
LANGUAGE OF INSTRUCTION and EXAMINATIONS:	Greek		
IS THE COURSE OFFERED TO ERASMUS STUDENTS	Yes (In English)		
COURSE WEBSITE (URL)	http://stavrakoudis.econ.uoi.gr/stavrakoudis/?iid=100		

(2) LEARNING OUTCOMES

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>	
<i>Consult Appendix A</i>	
<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> 	
By the end of the course the student will be able to:	
<ul style="list-style-type: none"> • Execute SQL commands to query a database (multi tables, several type of joins, etc). • Understand the principles of the relational model and relational databes. • Understand the DB design principles and the entity/relational model. • Import and export data to and from databases. • Use APIs to query online databases like Eurostat, WordBank, etc. • Create reports from databases. 	
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>	
<i>Search for, analysis and synthesis of data and 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>Project planning and management</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>Working in an interdisciplinary environment Production of new research ideas</i> <i>Others...</i>
Working independently Team work Working in an interdisciplinary environment Writing computer code Production of free, creative and inductive thinking	

(3) SYLLABUS

<ol style="list-style-type: none"> 1. Databases vs flat files and irregular tables (Excel, Word, etc) 2. The relational data model 3. Relational Algebra 4. SQL and DML. Query a databases with one or more tables. JOINS and subqueries. 5. SQL and DDL. Design and create a databases. User functions and procedures. 6. Query an online database with R and SDMX.
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(4) TEACHING and LEARNING METHODS - EVALUATION

DELIVERY <i>Face-to-face, Distance learning, etc.</i>	Face-to-face, online video lectures	
USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY <i>Use of ICT in teaching, laboratory education, communication with students</i>	Complete course management via website http://stavrakoudis.econ.uoi.gr/stavrakoudis/?iid=100 , slides, code and examples, announcements, polls, comments, etc. Lectures with laptop/projector.	
TEACHING METHODS <i>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</i>	Activity	Semester workload
	Lectures,	25
	directed study	40
	Computer work	75
	Test and quizz	10
	Homework	40
	Course total	185 hours
STUDENT PERFORMANCE EVALUATION <i>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.</i>	Mixture of : a) online quizz and tests b) project work	

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(5) ATTACHED BIBLIOGRAPHY

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| <ul style="list-style-type: none">• Silberschatz, A., H. F. Korth, and S. Sudarhan (2010). DATABASE SYSTEM CONCEPTS (6 ed.). New York, NY 10020, USA: McGraw-Hill Companies.• Kline, K. and D. Kline (2001). SQL IN A NUTSHELL. A Desktop Quick Reference. Sebastopol, CA 95472: O'Reilly Media. |
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