

COURSE OUTLINE

(1) GENERAL

SCHOOL	Faculty of Social, Political and Economic Sciences		
ACADEMIC UNIT	Department of Economics		
LEVEL OF STUDIES	Undergraduate		
COURSE CODE	NE88	SEMESTER	8th
COURSE TITLE	Decision Support Systems		
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	6	
<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>	Special Background		
PREREQUISITE COURSES:			
LANGUAGE OF INSTRUCTION and EXAMINATIONS:	HELLENIC		
IS THE COURSE OFFERED TO ERASMUS STUDENTS	YES (ESSAY IN ENGLISH)		
COURSE WEBSITE (URL)			

(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*

The course introduces the student to the field of decision support methods and systems.

The learning outcomes are as follows:

- Ability to perceive the characteristics of the decision models in real time or not.
- Ability to locate and select appropriate data to support decision models.
- Ability to analyze, investigate and evaluate a decision model.
- Ability to analyze and draw conclusions on:
 - o Characteristics and variables in the standardization of decision models
 - o The characteristics and type of data required to develop and support decision models
 - o Characteristics and methodological approach to developing decision support systems

Upon completion of the course, students should be able to:

- Know basic principles, methodologies and features in decision making models
- Understand the features of decision support systems on the basis of:
 - o Big Data Management, (Big Data)
 - o Selecting appropriate data, (Data Mining)
 - o Development of Management Information Systems, (MIS)
 - o Decision Support Systems Development (DSS).

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?

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

Search for, analysis and synthesis of data and information, with the use of the necessary technology
Working independently

(3) SYLLABUS

The content of the course includes the following sections:

- i. Data management for the development of decision models:
 - a. Data Mining
 - b. Data Blending
 - c. Big Data
- ii. Introduction to Management Information Systems:

- a. Management Information Systems (MIS)
- b. Geographic Information Systems (GIS)
- c. Data Visualization Systems (DVS)
- d. Negotiation Support Systems (NSS)
- e. Decision Support Systems (DSS)

(4) TEACHING and LEARNING METHODS - EVALUATION

DELIVERY <i>Face-to-face, Distance learning, etc.</i>	<i>Face-to-face</i>	
USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY <i>Use of ICT in teaching, laboratory education, communication with students</i>	<i>E-mail and e-class</i>	
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	52
	Assignments	20
	Independent study	78
	Course total	150
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>	Written examination (70%): - Assignments (30%)	

(5) ATTACHED BIBLIOGRAPHY

- Suggested bibliography:

1. I.K.Μουρμούρης, «Εφαρμογές Θεωρίας Αποφάσεων Πολλαπλών Κριτηρίων: Μεταφορές, Χωροθέτηση και Ανάπτυξη», ISBN 9789603516880, Εκδόσεις: Α. Σταμούλης, 2007.
2. Ν. Ματσατσίνης - Κ. Ζοπουνίδης, "Συστήματα αποφάσεων με πολλαπλά κριτήρια", ISBN 9604610686, Εκδόσεις: Κλειδάριθμος, 2007.

- Related academic journals:

International Journal of Management and Decision Making
International Journal of Decision Support Systems
Decision-Making for Supply Chain Integration-Springer
International Journal of Multicriteria Decision Making
Multiple Criteria Decision Making-Springer

Journal of Multi-Criteria Decision Analysis
Decision Support Systems
Journal of Decision Systems
Journal of Soft Computing and Decision Support Systems