COURSE OUTLINE

1. GENERAL

SCHOOL	APPLIED ECONOMIC AND SOCIAL SCIENCES		
ACADEMIC UNIT	AGRIBUSINESS AND SUPPLY CHAIN MANAGEMENT		
LEVEL OF STUDIES	*Undergraduate*		
COURSE CODE	**5404**	**SEMESTER**	4th
COURSE TITLE	MANAGEMENT INFORMATION SYSTEMS		

INDEPENDENT TEACHING ACTIVITIES	**WEEKLY TEACHING HOURS**	**CREDITS**
Lectures	3	6
Laboratory exercises	2	

COURSE TYPE	Special Background – Skills Development
PREREQUISITE COURSES	NO
LANGUAGE OF INSTRUCTION and EXAMINATIONS	Greek
IS THE COURSE OFFERED for ERASMUS STUDENTS?	YES (in English)
COURSE WEBSITE (URL)	https://mediasrv.aua.gr/eclass/modules/auth/opencourses.php?fc=123

2. LEARNING OUTCOMES

Learning Outcomes

The aim of the course is:

The course aims to familiarize students with management information systems and their role in decision making process and the achievement of competitive advantage. The course also focuses on information systems development methods, project management for the procurement/ development of information systems and the implementation of services of information systems to solve business problems.

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

- recognize the types of information systems and the suitability of each system in solving specific business problems
- explain the role of information systems in competitive advantage achievement
- explain the business benefits from applying intelligent techniques in decision-making and knowledge management
- describe the basic methodologies used for developing information systems
- evaluate information systems
- use project management tools for information systems procurement/development
- implement services as subsystems of information systems

General Competences

- Adapting to new situations Decision-making
- Working independently Teamwork
- Working in an international environment Working in an interdisciplinary environment Production of new research ideas Teamwork 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 Criticism and self-criticism
- Production of free, creative and inductive thinking

3. SYLLABUS

1. Introductory concepts and the significance of Information Systems in organizations
2. Information Systems in organizations: core components of a business, types of Information Systems, and the operation of Information Systems within organizations
3. Management of hardware and software technologies in the enterprise
4. Information Systems and business strategy: achieving competitive advantage, Porter's Five Forces model, and the value chain model
5. Advanced case studies on achieving competitive advantage through Information Systems
6. Modeling and simulation of business processes
7. Decision-making: types of decisions, the decision-making process, and intelligent systems for decision support
8. Decision Support Systems (DSS) based on Dynamic Systems and Fuzzy Cognitive Mapping (FCM)
9. Business Intelligence and analytics systems for decision support
10. Information Systems development: Systems Development Life Cycle (SDLC) analysis
11. Information Systems development: data collection and processing, systems design, and model development
12. Artificial Intelligence and Expert Systems
13. Intelligent Information Systems development: applications of Artificial Intelligence and Machine Learning

The laboratory part of the course covers the following topics:

Laboratory exercises focus on the analysis, design and implementation of subsystems of information systems that solve practical problems.

A combination of teaching and learning methods will be used, aiming at the active participation of the students and the practical application of the thematic units under examination; there will also be lectures using audiovisual media, discussions, and analyses of case studies on real business issues, experiential (group) activities, as well as projections of relevant videos. The students will also undertake an individual or group project. Furthermore, articles, audiovisual lecture materials, web links/addresses, useful information, case studies and exercises for further practice are posted in digital form on the AUA Open e-Class platform.

4. TEACHING and LEARNING METHODS - EVALUATION

DELIVERY

Face -to-face, Distance learning

USE OF INFORMATION and COMMUNICATIONS TECHNOLOGY

- Support of the learning process through the University's AUA Open eClass platform (integrated e-Course Management System)
- Support of lectures using presentation software
- Use of audiovisual material
- Use of web applications

Communication with students: face-to-face at office hours, email, eclass platform

TEACHING METHODS

Activity	*Workload*
Lectures (direct)	39
Laboratory Practice	26
Essay Writing	20
Autonomous study	36
Advisory Support	0,5
Examination	2
Laboratory Examination	2
Total (About 25 hours of study per ECTS)	***125,5***

STUDENT PERFORMANCE EVALUATION

The evaluation process is in the language that the course is taught (Greek or English) and consists of:

i. **Compulsory written final examination at the end of the semester (weighting factor 70% at least) which may includes:**

- **Multiple choice questionnaires**
- **Open-ended questions**
- **Problem solving**
- **Oral examination**

Evaluation criteria: correctness, completeness, clarity

ii. Optional written exam or essay during the semester (weighting factor 30%) which may includes:

	● Multiple choice questionnaires ● Open-ended questions ● Problem solving ● Essay/report ● Oral examination **Evaluation criteria:** correctness, completeness, clarity **Special learning difficulties:** Students with **special learning difficulties** in writing and reading (as they are certified and characterized by a competent body) are examined based on the procedure provided by the Department. **Specifically-Defined Criteria:** The evaluation criteria are made known during the first lesson and are clearly stated on the course website and the AUA Open e-class platform. The answers to the exam questions are posted on the AUA Open e-Class platform after the exam. The students are allowed to see their exam paper after its grading (during the announced office hours) and receive explanations about the grade they received

5. ATTACHED BIBLIOGRAPHY

Suggested Bibliography in Greek Language:

- Πληροφοριακά Συστήματα Διοίκησης στην Πράξη, Kroenke M.David, Boyle J.Randall, Έκδοση: 1η εκδ./2016, ISBN: 9789963274048, Κωδικός Βιβλίου στον Εύδοξο: 59392670, BROKEN HILL PUBLISHERS LTD
- Εισαγωγή στα Πληροφοριακά Συστήματα Διοίκησης: Διεργασίες, Συστήματα και Πληροφορίες, Έκδοση: 1/2017, ISBN: 9789963274055, Κωδικός Βιβλίου στον Εύδοξο: 68373074, BROKEN HILL PUBLISHERS LTD
- Wallace, P. (2014). «Πληροφοριακά Συστήματα Διοίκησης», Εκδ. Κριτική.
- Βεσκούκης, Β.(2015). Στοιχεία τεχνολογίας λογισμικού. [ηλεκτρ. βιβλ.] Αθήνα: Σύνδεσμος Ελληνικών Ακαδημαϊκών Βιβλιοθηκών. Διαθέσιμο στο: http://hdl.handle.net/11419/3160
- Δουληγέρης, Χ., Μητρόπουλος, Σ. (2015). Πληροφοριακά συστήματα στο διαδίκτυο. [ηλεκτρ. βιβλ.] Αθήνα:Σύνδεσμος Ελληνικών Ακαδημαϊκών Βιβλιοθηκών. κεφ 1. Διαθέσιμο στο: http://hdl.handle.net/11419/3970
- Καρανικόλας, Ν. (2012). Καθιερωμένα Πληροφοριακά Συστήματα Επιχειρήσεων. Τεχνική Αποτύπωση, Εκδόσεις Νέων Τεχνολογιών.
- Μητάκος, Θ., (2015). Πληροφοριακά συστήματα διοίκησης. [ηλεκτρ. βιβλ.] Αθήνα: Σύνδεσμος Ελληνικών Ακαδημαϊκών Βιβλιοθηκών. Κάλλιπος. Διαθέσιμο στο: http://hdl.handle.net/ 11419/748

Suggested Bibliography in English Language:

Wallace, P. (2021). Introduction to Information Systems, 4th Edition, Johns Hopkins University.

Related academic Journals:

ACM Transaction on Management Information Systems

European Journal of Information Systems
IEEE Transactions on Software Engineering
Journal of Management Information Systems

Journal of Strategic Information Systems

International Journal of Enterprise Information Systems

International Journal of Business Information Systems

Journal of Enterprise Information Management

Instructor's Notes