**COURSE OUTLINE**

1. **GENERAL**

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| **SCHOOL** | FINANCE AND STATISTICS | | | | |
| **ACADEMIC UNIT** | DEPARTMENT OF STATISTICS AND INSURANCE SCIENCE | | | | |
| **LEVEL OF STUDIES** | Graduate | | | | |
| **COURSE CODE** | ΣΑΠΛΗ51 | **SEMESTER** | | **4** | |
| **COURSE TITLE** | Information 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** |
|  | | | 3 | | 5 |
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| *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* | Informatics | | | | |
| **PREREQUISITE COURSES:** | The following courses are recommended for comprehending the contents of the course: Introduction to Programming, Data Management | | | | |
| **LANGUAGE OF INSTRUCTION and EXAMINATIONS:** | GREEK | | | | |
| **IS THE COURSE OFFERED TO ERASMUS STUDENTS** | YES | | | | |
| **COURSE WEBSITE (URL)** | <http://eclass.lab.unipi.gr/courses/SAE126/> | | | | |

1. **LEARNING OUTCOMES**

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| **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 lesson aims at the following learning objectives:   * Comprehension and knowledge of Information Systems (IS) from administrative, organizational and technical point of view. * Understanding the correlation of IS with data management/bases. * Learning techniques and methodologies for the analysis and design of IS. * Learning IS modeling techniques using the Unified Modeling Language (UML). | |
| **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*  *Team work*  *Working in an international environment*  *Working in an interdisciplinary environment*  *Production of new research ideas* | *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*  *……*  *Others…*  *…….* |
| * Search for, analysis and synthesis of data and information, with the use of the necessary technology * Team work * Project planning and management * Production of free, creative and inductive thinking | |

1. **SYLLABUS**

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| The course aims at a thorough study of theoretical as well as technical topics related to Information Systems (IS) and it is structured in three parts. The first part of the course provides basic definitions for IS, as well as the classification and correlation with the organizational levels and business processes in an enterprise. Specifically, it examines issues such as: the organizational structure of a "digital" business, the role of IS in business, the effects of IS in organizations and in their structures. We will also present the technological infrastructure for IS, various types and models of infrastructure, dependence on IS from databases which organize and store huge amounts of data. The second part of the course focuses on the analysis (Who uses the system, what does he do, where and how does he use the system?) and design (How does the system operate?) of information systems, presenting relevant theoretical, methodological and technical issues. Finally, the course studies the different phases of the analysis and development of information systems using the basic symbolic modeling language of integrated information systems, namely Unified Modeling Language (UML) (e.g. use cases, activity, collaboration, sequence, class/object diagrams, etc.). |

1. **TEACHING and LEARNING METHODS - EVALUATION**

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| **DELIVERY** *Face-to-face, Distance learning, etc.* | Lectures in class |
| **USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY** *Use of ICT in teaching, laboratory education, communication with students* | e-class  projector |
| **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* | |  |  | | --- | --- | | ***Activity*** | ***Semester workload*** | | Lectures | 48 | | Exercises | 12 | | Autonomus study | 90 | |  |  | |  |  | |  |  | |  |  | |  |  | |  |  | |  |  | | Course total | **150** | |
| **STUDENT PERFORMANCE EVALUATION**  *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.* | During the course an **optional project** will be given the goal of which is to analyse and design a simple IS.  Final grade= max(written exam, 0.3\*project +0.7\* written exam) |

1. **ATTACHED BIBLIOGRAPHY**

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| - Suggested bibliography:  (1) Laudon, K. C., Laudon, J. P. (2009) Management Information Systems. Pearson.  (2) Wallace Patricia (2014) Management Information Systems: People, Technology, Processes. Pearson.  (3) Lecture slides at eclass.  - Relative bibliography:   * O'Brien, J. A. (2004) Management Information Systems: Managing Information Technology in the Business Enterprise. McGraw-Hill. * Oz, E. (2006) Management Information Systems. Thompson Course Technology. * Turban, E. (2006) Information Technology for Management: Transforming Organizations in the Digital Economy. John Wiley & Sons. |