ANALYSIS AND DESIGN OF INFORMATION SYSTEMS

- **Course code**
  8120
- **Type of course (compulsory, optional)**
  Compulsory
- **Level of course** (e.g. first, second or third cycle; sub-level if applicable)
  N/A
- **Year of study**
  2013-2014
- **Semester**
  4th semester
- **Number of credits allocated**
  6 ECTS Credits
- **Name of lecturer**
  Nancy Pouloudi, Associate Professor
- **Learning outcomes**
  The course aims to respond to the organizational need to identify and understand problems in the management of information and processes. In this course students are exposed to methods for the systemic and systematic study and modeling of such problems, so that they can be supported by information systems. The course focuses on the identification, modeling and documentation of requirements of the various users and stakeholders that influenced and are influenced by the development of information systems. The transition from requirements to functional specifications, information system design and the development and implementation plan in the organization that will use the information system are also studied. Particular emphasis is given on the role of the human agent in information systems development. The practical part of the course concerns the analysis and design of information systems using tools such as Soft Systems Methodology (SSM), the Unified Modeling Language (UML) and the website design language HTML.

  At the end of this course, students will be able to understand the information systems development process and have the essential theoretical and practical knowledge necessary for its effective management.

- **Mode of delivery (face-to-face, distance learning)**

  Lectures, exercises in information systems modelling with SSM and UML, case studies
- **Prerequisites and co-requisites**

  N/A
- **Recommended optional programme components**

  N/A
- **Course contents**

  The course material includes the following areas:
  - *Introduction to organizational information systems*
  - *Human activity systems modeling*
  - *Information systems analysis*
  - *Information systems design*
  - *IS life cycle – Rational Unified Process (RUP) – IS development methodologies*
  - *The information system in the organization (implementation and evaluation)*
- **Recommended or required reading**

  📖 A. Dennis, B. Wixom, D. Tegarden (2010) Ανάλυση και σχεδιασμός συστημάτων με τη UML 2.0. Εκδόσεις Κλειδάριθμος. (ISBN : 978-960-461-389-2).

  📖 *K. E. Kendall, J. E. Kendal (2010) Ανάλυση & Σχεδίαση Συστημάτων, 8η έκδοση. Εκδόσεις Μ. Γκιούρδας (ISBN: 978-960-512-603-2).*
- **Planned learning activities and teaching methods**

Teaching includes lectures and tutorial lessons on SSM and UML modeling; coursework is based on a group project, whereby students collect data and requirements in a real-life organizational context and develop specifications (using SSM and UML) and an initial design (using HTML) of an IS that meets the organizational requirements

- **Assessment methods assessment methods and criteria**

  Final written exam (50%).

  Group project of analysis and design of an actual information system (50%)

  Students must achieve >= 5 grade in written exam
- **Language of instruction**

  Greek.
- **Work placement(s)**

  N/A