PROGRAMMING I

- **Course code**

  8106

- **Type of course (compulsory, optional)**

  Compulsory

- **Level of course**

  First Cycle

- **Year of study**

  2013-2014

- **Semester**

  2nd Semester

- **Number of credits allocated**

  6 ECTS Credits

- **Name of lecturer**

  Lekakos George, Assistant Professor

- **Learning outcomes**

  The course introduces students to the fundamental concepts of programming using the Java programming language. At the first part of the course, students are familiarized with the basics of programming (development of algorithms, Object-oriented design) applied through Java programming. At the second part of the course, the most significant aspects of the Java language are analyzed (classes, methods, variables, tables, control statements, inheritance) in order to provide students the ability to develop their own Java programs. The expected learning outcome is to enable students to design object-oriented programs and develop programming skills using the Java language through a number of lab exercises and personal assignments. The scalable learning method employed (from small program segments to larger – real life – programs) is expected to exercise students in the analytical programming thinking and provide them with the necessary knowledge to build their own programs in a systematic way.

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

  Face-to-face

- **Prerequisites and co-requisites**

- **Recommended optional programme components**

- **Course contents**

Fundamental elements of programming languages, Object-Oriented modeling, the Java programming language, variables, input and output, comparison operators, logic operators,

conditional operators, programming with objects, classes and methods, arrays, exceptions, inheritance

- **Recommended or required reading**

  📖 Java: How to program, 8th edition, Deitel and Deitel, Pearson education, Inc., 2010

  📖 Ε. Α. Παπαθανασίου. Στοιχεία Υπολογιστικών Συστημάτων, Εκδ.Ε.Μπένου, Αθήνα 1998.

  📖 Γ. Λιακέας. Εισαγωγή στην Java. Κλειδάριθμος, Αθήνα, 2000.

  📖 L. Goldschlager and A. Lister. Εισαγωγή στη σύγχρονη επιστήμη των υπολογιστών. Διάυλος, 1994.

  📖 K. N. King. Java Programming: From the Beginning. W.W. Norton & Company, 2000.

  📖 Ron White, Timothy Downs, Stephen Adams. How Computers Work. 5th ed., Que1999

  📖 J. Glenn Brookshear. Computer Science: an overview. Addison Wesley Longman, 1997

- **Planned learning activities and teaching methods**

  Lectures, labs

- **Assessment methods assessment methods and criteria**

  Written exams and personal assignments (the final grade is the 60% of the written exams and 40% of the assignments)

- **Language of instruction**

  Greek

- **Work placement(s)**