NETWORKS, ALGORITHMS AND DATA STRUCTURES

- **Course code**

  8162

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

  Compulsory

- **Level of course**

  First Cycle

- **Year of study**

  2013-2014

- **Semester**

  4th Semester

- **Number of credits allocated**

  6 ECTS Credits

- **Name of lecturer**

  George M. Giaglis, Professor

- **Course description**

  The course aims at introducing students to the basic architectures and technologies of computer networks, emphasizing on the Internet and digital social media. It also covers aspects of algorithms, complexity and basic data structures for computer programming.

- **Learning outcomes**

  Students will:

  - Understand the basic principles governing the Internet
  - Learn how the most popular Internet applications work
  - Understand how data are transferred and routed via the Internet
  - Understand how algorithms and data structures are related in solving computing problems

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

  Face to face

- **Prerequisites and co-requisites**

  None

- **Recommended optional programme components**

  None

- **Course contents**

  - Applications: WWW, email, P2P. FTP, DNS, sockets
  - Transport layer, Network layer, Link layer and LANs
  - Wireless and Mobile networks
  - Digital Social Media and Analytics
  - Algorithms and Complexity
  - Static and Dynamic Data Structures

- **Recommended or required reading**

  Not available

- **Planned learning activities and teaching methods**

  Lectures, tutorials

- **Assessment methods assessment methods and criteria**

  Student project, Final exam

- **Language of instruction**

  Greek

- **Work placement(s)**

  N.A.