



## Course Syllabus

<b>Course Code</b>	<b>Course Title</b>	<b>ECTS Credits</b>
MIS-456	Management Information Systems	6
<b>Prerequisites</b>	<b>Department</b>	<b>Semester</b>
MIS-351	Management and MIS	Spring
<b>Type of Course</b>	<b>Field</b>	<b>Language of Instruction</b>
Required	MIS	English
<b>Level of Course</b>	<b>Lecturer(s)</b>	<b>Year of Study</b>
1 <sup>st</sup> Cycle	Prof. Angelika Kokkinaki	4 <sup>th</sup>
<b>Mode of Delivery</b>	<b>Work Placement</b>	<b>Corequisites</b>
Face to face	N/A	N/A

### Course Objectives:

The main objectives of the course are to:

- Explore issues, challenges and opportunities that senior managers and information system (IS) executives face today when managing information and telecommunications technological (ICT) resources in organizations;
- Explain the relevant issues of effective management of ICT and highlights the areas of greatest potential;
- Describe and apply conceptual tools used to examine the efficiency and effectiveness of the management of ICT resources as well as its alignment to the general management's strategy, needs and values;
- Apply techniques and tools used for improved management and decision-making.

### Learning Outcomes:

After completion of the course students are expected to be able to:

1. Develop structured frameworks to manage ICT resources and align them to the general management's strategy, needs and values;
2. Explain tactics and tools used to ensure that the organization targets its ICT applications development efficiently and effectively;
3. Examine if a given organization is being affected competitively either by failing to implement the required ICT applications or by faulty implementation of strategic applications;

4. Develop the firm's ICT planning and control processes;
5. Examine whether the firm's ICT activity is sufficiently insulated against the risks of a major disaster and develop or amend a Recovery Development Plan;
6. Define metrics that demonstrate how effectively the IT assets of a firm are managed and to what extent they are sufficiently and appropriately allocated within the firm;
7. Discuss the "best practice" tools, methods, and approaches that are most applicable for a given managerial aspect of ICT resources.

**Course Content:**

1. Management information systems and the modern enterprise;
2. Strategy and technology: concepts and frameworks that add value to organizations;
3. Moore's law and more: fast, cheap computing, and its managerial implications;
4. Software in flux: open source, cloud, virtualized and app-driven shifts;
5. The data asset: databases, business intelligence, analytics, big data, and competitive advantage;
6. The value of data and data analytics in business;
7. The value of communication systems in organizations;
8. Understanding network effects: competing in a platform-centric, winner-take-all world;
9. Disruptive technologies: understanding the giant killers and tactics for avoiding extinction;
10. The sharing economy, collaborative consumption, and creating more efficient markets through Technology;
11. Case Studies supporting concepts presented above;
12. Assignments in Python for various business analytics.

**Learning Activities and Teaching Methods:**

- Faculty Lectures and Guest-Lectures Seminars;
- Directed and Background Reading;
- Case-studies;
- Programming Assignments.

**Assessment Methods:**

Case Studies; Homework Assignments; Mid-Term Exam; Final Exam.

**Required Textbooks / Readings:**

<b>Title</b>	<b>Author(s)</b>	<b>Publisher</b>	<b>Year</b>	<b>ISBN</b>
Information Systems: A Manager's Guide to Harnessing Technology, v. 5.0	John Gallaugher	FlatWorld	2017	978-1-4533-8502-9
<a href="https://catalog.flatworldknowledge.com">https://catalog.flatworldknowledge.com</a>				
Think Python: How to Think Like a Computer Scientist, 2 <sup>nd</sup> Ed.	Allen Downey	O'Reilly Media Inc	2015	978-1491939369
<a href="http://greenteapress.com/thinkpython2/html/index.html">http://greenteapress.com/thinkpython2/html/index.html</a>				

**Recommended Textbooks / Readings:**

<b>Title</b>	<b>Author(s)</b>	<b>Publisher</b>	<b>Year</b>	<b>ISBN</b>
The Adventures of an IT Leader	Austin, R.D., Nolan, R. L. and O'Donnell S.	Harvard Business Press	2009	978-1422146606
A series of articles and best practices approaches on students' intranet.				