

Course unit title:	Fundamentals of Information Systems
Course unit code:	INS505
Type of course unit: (Compulsory/optional)	Optional
Level of course unit: (First, second or third cycle)	Master (2 nd Cycle)
Year of study:	Foundation Year
Semester when the unit is delivered:	1
Number of ECTS credits allocated:	6
Name of lecturer(s):	TBA
Learning outcomes of the course unit:	
<p>Upon successful completion of this course students should be able to:</p> <ul style="list-style-type: none"> • Describe Information Systems concepts and theory at different levels. • Model business processes, and describe design solutions that enhance organizational performance. • Explain key concepts of information systems development. • Recognize data and information modeling techniques. • Manipulate databases through Structure Query Language. • Explain the normalization process during database design 	
Mode of delivery:	Face- to- face
Prerequisites and co-requisites:	None
Recommended optional program components:	None
<p>Course Contents: Objective:</p> <p>This course provides an introduction to the fundamentals of information systems and their underlying infrastructure. Several issues and concepts are analysed to demonstrate the importance of information management for improved business management.</p> <p>Description:</p> <p>Introduction Fundamental theories of Information Systems. Information systems in business. Components</p>	

of information systems.

Business Processes Modeling

Introduction to the underlying concepts of business process modeling and their associated techniques.

Business Process Redesign

Introduction to the various techniques through which organizations can gain competitive advantage by streamlining their business processes. The role of information systems.

Information Systems Development

Introduction to contemporary information systems development processes.

Information Management

Introduction to the basic aspects of data and information management such as: data warehousing, business analytics.

Database concepts

Introduction to the fundamental concepts of databases. Types of databases structures.

Conceptual data modeling and database design

Introduction to the basic concepts of data modeling using Entity Relationship Diagrams and Class Diagrams. Physical database design techniques.

Database Normalization

Functional dependencies and data normalization for relational databases using primary keys.

Data Manipulation

Introduction to the basic concepts of structured query language.

Recommended or required reading:

Patricia Wallace, (2012) Information Systems in Organizations, Prentice Hall

David M. Kroenke,(2012), Database Processing: Fundamentals, Design, and Implementation, 12th Edition, Prentice Hall.

Planned learning activities and teaching methods:

Class Instruction

42 Hours

Consultation

30 Hours

Assessment methods and criteria:	<table border="1"> <tr> <td data-bbox="617 262 1079 294">Examinations</td> <td data-bbox="1079 262 1315 294">50%</td> </tr> <tr> <td data-bbox="617 304 1079 336">Assignments / Class</td> <td data-bbox="1079 304 1315 336">50%</td> </tr> <tr> <td data-bbox="617 346 1079 378">Participation</td> <td data-bbox="1079 346 1315 378">100%</td> </tr> </table>	Examinations	50%	Assignments / Class	50%	Participation	100%
Examinations	50%						
Assignments / Class	50%						
Participation	100%						
Language of instruction:	English						
Work placement(s):	No						
Place of Teaching:	Regular Classroom European University Cyprus, Nicosia Computer Laboratory European University Cyprus, Nicosia						