Course unit title:	Database Design and Management
Course unit code:	CSC 319
Type of course unit (compulsory, optional):	Optional
Level of course unit:	Bachelor (1st cycle)
Year of study:	3
Semester when the course unit is delivered:	1 or 2
Number of ECTS credits allocated:	6
Name of lecturer(s):	Dr Marcos Marcou/ Dr Andriani Piki
Learning outcomes of the course unit:	• Differentiate the various database models (e.g. hierarchical, network, and relational). • Cite the various steps that are implemented in designing relational database systems. • Describe data models based on the types of concepts they provide (e.g. conceptual, logical and physical data models). • Explain the basic goals, functions, models, components, applications, and social impact of database systems. • Create, organise and manipulate databases using correct modelling concepts and notation of the Entity–Relationship (E-R) model including enhanced E-R modelling (UML), and database normalisation techniques. • Construct a relational database schema that incorporates key, entity integrity, and referential integrity constraints. • Build queries, using the Structured Query Language, to elicit information from a database.
Mode of delivery:	Face-to-face
Prerequisites and co-requisites:	None
Recommended optional programme components:	None
Course contents:	This course teaches concepts concerning the design and management of database systems. It begins with an introduction to the field of database systems, database environments and architectures. Advanced topics such as relational modelling, relational languages, database analysis and design techniques and their practical applications are covered. Finally, the course covers the basics of the Structured Query Language.
Recommended or required reading:	**Required reading:** Connolly and Begg. (2009). *Database Systems: A Practical Approach to Design, Implementation and Management*. 5th Edition. Addison Wesley. **Recommended reading:** Van der Lans. (2006). *Introduction to SQL: Mastering the Relational Database Language*. 4th Edition. Addison-Wesley.
Planned learning activities and teaching methods:	Lectures, homework, laboratory exercises.
Assessment methods and criteria:	Class Participation: 5% Assignment: 10% Mid-Term Test: 15% Final Examination: 70%
Language of instruction:	English
Work placements:	None