Course Title	**Databases 1**				
Course Code	**CSC310**				
Course Type	**Compulsory**				
Level	BSc/1st Cycle				
Year / Semester	3rd/5th				
Teacher's Name	Stavros Katsaronas				
ECTS	7.5	**Lectures / week**	3 hours	**Laboratories / week**	2 hours
Course Purpose and Objectives	The aim of the course is to provide students with the necessary knowledge to be able to design databases and database systems and to implement databases using SQL language.				
Learning Outcomes	Upon successful completion of the course, students will be able to: • Understand the basic tools of database technology and well-known Database Management (DBMS) • Understand basic issues of transactions, database administration and views • Analyze business rules to design databases • Apply basic design and implementation techniques to simple databases • Apply basic SQL language techniques for implementing database systems				
Prerequisites	-	**Required**	-		
Course Content	Databases, Database Systems, Database Management Systems, Database Systems Architecture. Data Structures for Databases. Basic data concepts (data independence, integrity rules, restrictions, etc.). Hierarchical, Network and Relational Data Model. Relational algebra, Relational calculus and QBE. Database design (Normalization, Entity - Relationship Model). Structured Query Language (SQL). Sight updates. Role and tasks of the Database Administrator. Transactions.				
Teaching Methodology	Lectures 42 hours Labs 30 hours				

Bibliography	Connonly, T.M., Begg, C.E. and Strachan, Database Systems – A Practical Approach to Design, Implementation and Management, 5/e, A.D. Addison Wesley. ISBN : 0321523067 Michael McLaughlin , Oracle Database 11g PL/SQL Programming: Develop Robust, Database-Driven PL/SQL Applications McGraw-Hill Osborne Oracle Press Series ISBN : 2008 0071494456
Assessment	Final Exam 60% Mid-term/Lab Exam 20% Assignments 20%
Language	English