Course Name : Databases

Course Code	Course Type	Regular Semester	Lecture (hours/week)	Seminar (hours/week)	Lab. (hours/week)	Credits	ECTS
CMP 217	B	Fall	3.00	0.00	1.00	3.50	5.00

Lecturer	Kleona Elezi, Msc
Assistant	Erjola Osmani, Msc
Course language	Albanian
Course level	Bachelor
Description	This course provides the necessary theoretical and practical foundations for relational database management systems. It also covers data analysis and modeling using entity-relationship techniques, relational theory and normalization, and the SQL language.
Objectives	Create a DB
Core Concepts	Basics of Tables SELECT and WHERE Clause WHERE, AND & OR with Operators BETWEEN, IN and NULL Single Table Queries Single Row Functions Grouping Functions GROUP BY and HAVING Clause Joins Inner and Outer Joins EXISTS & NOT EXIST Operators Creating Your Own Tables Using ALTER Creating Tables with SELECT & UPDATE Data DELETE, TRUNCATE, and DROP Commands

Course Outline

Week	Topic
1	Introduction to Database Systems, Database System Concepts
2	Entity-Relationship Model
3	Enhanced Entity Relationship Model
4	Relational Data Model
5	Normalization
6	Normalization
7	Normalizing a database
8	Midterm
9	Introduction to SQL
10	DML data manipulation instructions
11	More DML instructions, DDL table creation instructions
12	Introduction to MySQL, database design in MySQL
13	Tables in MYSQL
14	Retrive data from tables using MySQL statements
15	Database Programming
16	Final Exam

Prerequisites	The student must attend the course at a minimum rate of 75%.
Literature	• Ch. FEHILY, SQL – Third Edition, 2008 • Jay Greenspan and Brad Bulger, 'MySQL/PHP Database application', 2001, Published by M&T Books • Emasri, Navathe, "Fundamentals of Database Systems", 2011 sixth edition, Addison Wesley.
References	• Alba Como, Xheni Melo, Menaxhimi bazë të dhënash, 2018, EneaS, Tiranë.

Course Outcome

1	Studenti arrin të krijojë një bazë të dhenash të thjeshtë.
2	Studenti arrin të bëj query të thjeshta në databazë.
3	Studenti njihet me komponentët bazë të një RDBMS.
4	Studenti arrin të manipulojnë të dhënat e një bazë të dhënash me SQL dhe MySQL.
5	Studenti është i aftë të administrojë një bazë të dhënash.

Course Evaluation

In-term Studies	Quantity	Percentage
Midterms	1	25
Quizzes	0	0
Projects	1	15
Term Projects	0	0
Laboratory	1	10
Class Participation	1	10
Total in-term evaluation percent		**60**
Final exam percent		**40**
Total		**100**

ECTS Workload (Based on Student Workload)

Activities	Quantity	Duration (hours)	Total (hours)
Course duration (Including the exam week: 16x Total hours of the course)	16	4	64
Study hours outside the classroom (Preparation, Practice, etc.)	14	1	14
Duties	1	20	20
Midterms	1	10	10
Final Exam	1	20	20
Other	0	0	0
Total Work Load			**128**
Total Work Load / 25 (hours)			**5.12**
ECTS			**5.00**