DATABASE MANAGEMENT SYSTEMS

1	Course Title:	DATABASE MANAGEMENT SYSTEMS
2	Course Code:	BMB3001
3	Type of Course:	Compulsory
4	Level of Course:	First Cycle
5	Year of Study:	3
6	Semester:	5
7	ECTS Credits Allocated:	5.00
8	Theoretical (hour/week):	3.00
9	Practice (hour/week):	0.00
10	Laboratory (hour/week):	0
11	Prerequisites:	None
12	Language:	Turkish
13	Mode of Delivery:	Face to face
14	Course Coordinator:	Dr. Ögr. Üyesi CEYDA NUR ÖZTÜRK
15	Course Lecturers:	
16	Contact information of the Course Coordinator:	ceydanur@uludag.edu.tr
17	Website:	
18	Objective of the Course:	To have the students understand the fundamental concepts that are related to database management. To teach entity-relationship and relational database design models as well as the structured query language SQL that was defined for relational model. To study the issues such as indexing, normalization, views, transactions, concurrency and recovery in the context of database efficiency and maintenance.
19	Contribution of the Course to Professional Development:	
20	Learning Outcomes:	

		1	Being able to design a typical database using entity-relationship model or relational model
		2	Being able to implement and query the designed database with the structured query language SQL
		3	Being able to program database-dependent applications
		4	Having the critical issues mastered for management of a database in the long term
		5	Being informed about features of current database systems
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21	Course Content:	

Course Content:	

Week	Theoretical	Practice
1	Introduction to basic concepts of database management systems	

2	Logical database design with entity-relationship model	
3	Relational model and relational algebra	
4	Structured query language SQL: Basic queries	
5	Structured query language SQL: Complex queries	
6	Advanced SQL and application development with SQL programming	
7	Midterm	
8	Indexing	
9	Normalization	
10	Views and transactions	
11	Concurrency	
12	Recovery system	
13	Object-oriented databases and XML	
14	Open-source and commercial database systems	

22	Textbooks, References and/or Other Materials:	1. An Introduction to Database Systems, C.J. Date, Addison- Wesley, 2004, ISBN 0-321-19784-4. 2. Database Management Systems, R. Ramakrishnan and J. Gehrke, McGraw-Hill, 2003, ISBN 0-07-115110-9. 3. Database System Concepts, A. Silberschatz, H. F. Türkiye Bilişim Vakfı Ortak Yayını, 2000.

Activites	Number	Duration (hour)	Total Work Load (hour)
Theoretical	14	3.00	42.00
Practicals/Labs	0	0.00	0.00
Self study and preparation	14	3.00	42.00
Homeworks	4	10.00	40.00
Projects	0	0.00	0.00
Field Studies	0	0.00	0.00
Midterm exams	1	13.00	13.00
Others	0	0.00	0.00
Final Exams	1	17.00	17.00
Total Work Load			154.00
Total work load/ 30 hr			5.13
ECTS Credit of the Course			5.00

TERM LEARNING ACTIVITIES	NUMBE	WEIGHT
Midterm Exam	1	20.00
Quiz	2	0.00
Home work-project	4	20.00
Final Exam	1	60.00
Total	6	100.00
Contribution of Term (Year) Learning Activities		40.00
Contribution of Final Exam to Success Grade	60.00	
Total	100.00	

Measurement and Evaluation Techniques Used in the Course	

24	ECTS / WORK LOAD TABLE

25	CONTRIBUTION OF LEARNING OUTCOMES TO PROGRAMME QUALIFICATIONS															
	PQ1	PQ2	PQ3	PQ4	PQ5	PQ6	PQ7	PQ8	PQ9	PQ10	PQ11	PQ12	PQ13	PQ14	PQ15	PQ16
ÖK1	5	5	3	3	2	5	0	0	0	0	0	0	0	0	0	0
ÖK2	4	4	5	5	3	5	0	0	0	0	0	0	0	0	0	0

ÖK3	4	2	5	5	3	5	0	0	0	0	0	0	0	0	0	0
ÖK4	3	4	2	2	0	1	0	0	0	0	0	0	0	0	0	0
ÖK5	2	1	1	3	0	1	0	0	1	0	0	0	0	0	0	0

LO: Learning Objectives   PQ: Program Qualifications

Contribution Level:	**1 very low**	**2 low**	**3 Medium**	**4 High**	**5 Very High**