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. Korth, and S. Sudarshan, Fifth edition, McGraw Hill, 2001. 4. Fundamentals of Database Systems, R. Elmasri and S. B. Navathe, Fifth edition, Addison Wesley, 2010 5. Yarımağan, Ü. Veri Tabanı Sistemleri. Akademi & Türkiye Bilişim Vakfı Ortak Yayını, 2000.
23	Assesment	

TERM LEARNING ACTIVITIES	**NUMBER**	**WEIGHT**
Midterm Exam	1	20.00
Quiz	0	0.00
Home work-project	4	20.00
Final Exam	1	60.00
Total	6	100.00
Contribution of Term (Year) Learning Activities to Success Grade		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**

Activites	Number	Duration (hour)	Total Work Load (hour)
Theoretical	14	3.00	42.00
Practicals/Labs	0	0.00	0.00
Self study and preperation	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

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**