DATABASE MANAGEMENT SYSTEMS

1	Course Title:	DATABASE MANAGEMENT SYSTEMS	
2	Course Code:	END3238	
3	Type of Course:	Optional	
4	Level of Course:	First Cycle	
5	Year of Study:	3	
6	Semester:	5	
7	ECTS Credits Allocated:	3.00	
8	Theoretical (hour/week):	1.00	
9	Practice (hour/week):	0.00	
10	Laboratory (hour/week):	2	
11	Prerequisites:	-	
12	Language:	English	
13	Mode of Delivery:	Face to face	
14	Course Coordinator:	Dr. Ögr. Üyesi BESİM TÜRKER ÖZALP	
15	Course Lecturers:	-	
16	Contact information of the Course Coordinator:	tozalp@uludag.edu.tr, 0-224-2942090, Endüstri Müh. Bölümü Oda No:302 Görükle Bursa	
17	Website:	http://www20.uludag.edu.tr/~tozalp	
18	Objective of the Course:	The objective of this course is to learn how to design, manipulate and encourage the usage of database management systems for effective data management.	
19	Contribution of the Course to Professional Development:		
20	Learning Outcomes:		
		1	Define a Database Management System.
		2	Define basic foundational terms of Database.
		3	Analyze organizational information requirements using the entity-relationship approach and model them as Entity-Relationship Diagrams (conceptual database design).
		4	Compare relational model with the Structured Query Language.
		5	Ability to realize a database project within a group.
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21	Course Content:		

Course Content:

Week	Theoretical	Practice
1	Database Systems, file systems vs. a DBMS.	Working in Access 2007, Opening an Existing Database. Exploring tables, queries, forms, reports.
2	Schemas, queries, structures.	Creating a database, manipulating table columns and rows.

3	Introduction to Entity-Relationship Model.	Populating a database, importing information from another access database, excel worksheet, text file, dbase.
4	Entitles, attributes and entity sets.	Creating a form by using the form tool, entering data in a form by using vba.
5	Relationships and relationship sets, constraints, aggregation.	Creating a form by using an autoform, adding a subform to a form.
6	Introduction to the relational model. Creating and modifying relations, key constraints.	Sorting information in a table, filtering information in a table, filtering information by using a form.
7	Foreign key constraints, general constraints, querying relational data.	Creating a query manually, creating a query by using a wizard, performing calculations by using a query.
8	Entity sets to tables. Views, data independence, security, destroying/altering tables and views.	Restricting the type and amonunt of data in a field.
9	Relational algebra and calculus. relational algebra, selection and projection.	Relational algebra and calculus. relational algebra, selection and projection
10	Set operations, renaming, joins.	Preventing database problems.
11	Division relational calculus, tuple relational calculus, domain relational calculus	Creating a report by using a wizard, modifying report design
12	Expressions and Strings in the SELECT Command, UNION, INTERSECT, and	Creating a report by using a wizard, modifying report design
13	Aggregate Operators, Embedded SQL,	Creating a report by using a wizard, modifying report design
14	Databases.	for distribution.
22	Textbooks, References and/or Other	R. Ramakrishnan,J. Gehrke, Database Management 2002
		2007 Step by Step, Microsoft Press, 2007
23	Assesment	

Activites	Number	Duration (hour)	Total Work Load (hour)
Theoretical	14	1.00	14.00
Practicals/Labs	14	2.00	28.00
Self study and preperation	14	2.00	28.00
Homeworks	1	2.00	2.00
Projects	1	15.00	15.00
Field Studies	0	0.00	0.00
Midterm exams	1	1.50	1.50
Others	0	0.00	0.00
Final Exams	1	1.50	1.50
Total Work Load			90.00
Total work load/ 30 hr			3.00
ECTS Credit of the Course			3.00

TERM LEARNING ACTIVITIES	**NUMBER**	**WEIGHT**
Midterm Exam	1	25.00
Quiz	0	0.00
Home work-project	1	25.00
Final Exam	1	50.00
Total	3	100.00
Contribution of Term (Year) Learning Activities to Success Grade		50.00
Contribution of Final Exam to Success Grade		50.00

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	2	3	3	4	1	0	1	0	0	0	0	1	4	0	1	0
ÖK2	2	3	3	4	1	0	1	0	0	0	0	1	4	0	1	0
ÖK3	2	3	3	4	1	0	1	0	0	0	0	1	4	0	1	0
ÖK4	2	3	3	4	1	0	1	0	0	0	0	1	4	0	1	0
ÖK5	0	0	0	0	0	5	5	0	0	0	0	0	0	5	0	0
LO: Learning Objectives PQ: Program Qualifications																
Contribution Level:	**1 very low**		**2 low**			**3 Medium**			**4 High**			**5 Very High**				