

<b>Course Description</b>	
Course Code	YZ 307
Course Name	DATABASE MANAGEMENT SYSTEMS
Prerequisite Courses	
Language of the Course	The English
Course Coordinator	
Instructor(s)	
Course Assistants	
The aim of the course	Database analysis, design, querying, management, and development
Course Content	Database analysis, design, querying, management, and development

<b>Weekly Course Content</b>	
Week 1	Database management systems
Week 2	Relational database systems
Week 3	Entity-relationship diagram
Week 4	Entity-relationship diagram
Week 5	Normalization
Week 6	Normalization
Week 7	SQL
Week 8	Midterm exam.
Week 9	SQL
Week 10	Query optimization
Week 11	Transactions
Week12	Distributed databases
Week 13	Security and concurrency control
Week 14	Practices
Week 15	Final exam.

<b>Course Learning Outcomes</b>	
1	The ability to design a database
2	The ability to query and optimize a database
3	The ability to manage transactions
4	The ability to model databases
5	The ability to optimize queries
6	The ability to manage database security

<b>Contribution of the Course to Program Qualifications</b>			<b>Contribution Level</b>
01	The student will have the ability to apply analytical approach, mathematics and science knowledge in software and engineering issues.		2
02	The student will have the ability to identify, define, formulate and solve a problem in software and computer systems.		2
03	The student will have gains scientific research skills in software and engineering problems, has the ability to design a system, part or process.		4
04	The student will have the ability to use the design capability, techniques and tools required for engineering applications.		4
05	The student will have the ability to design, implement and interpret experimental work and software projects by analyzing the results.		4
06	The student will have the ability to work between disciplines and teamwork.		4
07	The student will have the ability to work in international environments and adapt to different cultures.		3
08	The student will have verbal and written communication skills in Turkish and English.		4
09	The student will have the awareness of the necessity of lifelong learning and the ability to realize it.		2
10	The student will gain knowledge of legal issues with the awareness of professional and ethical responsibility.		5
11	The student will have managerial skills (leadership, organization, time and risk management, quality awareness, efficiency, etc.).		3
12	The student will have the ability to participate in social activities, to acquire regular sports habits and to use time in the best way.		1
13	The student will have the ability to find unusual ways and produce projects.		4
14	The student will have professional self-confidence, being an entrepreneur and taking initiative.		5
15	It is sensitive about the problems of the age and looks after the national interests.		1

<b>ECTS WORKLOAD</b>			
	<b>Number</b>	<b>Duration (hours)</b>	<b>Number*Duration</b>
Face to face education	14	3	42
Out-of-class study time (pre-study, reinforcement)	14	2	28
Homeworks	0	0	0
Presentation / Seminar preparation	0	0	0
Quizzes	0	0	0
Preparation for midterm exams	1	10	10
midterm exams	1	2	2
Project (Semester assignment)	1	20	20
Lab	0	0	0
field work	0	0	0
Preparation for the final exam	1	20	20
Semester final exam	1	2	2
Research	1	15	15
<b>TOTAL WORKLOAD</b>			<b>139</b>
<b>ECTS</b>			<b>5</b>

<b>Evaluation</b>			
<b>SEMESTER EVALUATION</b>		<b>Number</b>	<b>Contribution Percentage</b>
Midterm		1	40
Quiz		0	0
Homework		0	0
<b>SEMESTER TOTAL</b>			<b>40</b>
Contribution rate of mid-term evaluations to success			40
Contribution rate of the final exam to success			60
<b>GRAND TOTAL</b>			<b>100</b>

<b>RESOURCES</b>	
Textbook	Database Management Systems, Raghu Ramakrishnan, 2000.
Helpful Resources	Database Systems, Thomas Connolly, Carolyn Begg, Anne Streachen, Addison- Wesley, 1999. Database Systems, Garcia-Molina, Ullman and Widom, 2002