

<b>Course Description Form</b>	
<b>Course Code and Name</b>	CENG364 DATABASE APPLICATIONS (TECH.ELECT.)
<b>Course Semester</b>	6
<b>Catalog Content</b>	Relational database concept and data models, Set operators, Creating procedures and functions
<b>Textbook</b>	Oracle Database 12c The Complete Reference, Bob Bryla and Kevin Loney, Oracle Press, McGraw-Hill Education, 2013.
<b>Supplementary Textbooks</b>	- Oracle Database 11g SQL, Jason Price, Oracle Press, McGraw-Hill Education, 2007.  - Application Development with Oracle Database 12c, Oracle White Paper, 2013.
<b>Credit</b>	6
<b>Prerequisites of the Course</b> ( Attendance Requirements)	There is no prerequisite or co-requisite for this course.
<b>Type of the Course</b>	Elective
<b>Instruction Language</b>	English
<b>Course Objectives</b>	Database programming using SQL
<b>Course Learning Outcomes</b>	<ol style="list-style-type: none"> <li>1. Entity-Relationship data model</li> <li>2. Relational scheme</li> <li>3. Functional dependency and normalization, logical and physical database design</li> <li>4. Relational algebra</li> <li>5. Query language</li> <li>6. Data recovery</li> <li>7. Multi-user database applications</li> </ol>
<b>Instruction Methods</b>	The mode of delivery of this course is Face to face
<b>Weekly Schedule</b>	<ol style="list-style-type: none"> <li>1.Week:Introduction</li> <li>2.Week:Relational database concept and data models</li> <li>3.Week:Customizing output, conversion functions</li> <li>4.Week:Group functions, joining tables</li> <li>5.Week:Subqueries</li> <li>6.Week:Set operators</li> <li>7.Week:Manipulating data</li> <li>8.Week:Creating and managing schema objects</li> <li>9.Week:Controlling user access, data dictionary views</li> <li>10.Week:Manipulating large data sets</li> <li>11.Week:Retrieving data via subqueries</li> <li>12.Week:Introduction to PL/SQL</li> <li>13.Week:Creating procedures and functions</li> <li>14.Week:Creating and managing packages</li> </ol>

<p><b>Teaching and Learning Methods</b></p> <p><i>(These are examples. Please fill which activities you use in the course)</i></p>	<p>Weekly theoretical course hours: 3          Reading Activities          Internet browsing, library work Designing and implementing          Preparation of Midterm and Midterm Exam          Final Exam and Preparation for Final Exam</p>		
<p><b>Assessment Criteria</b></p>		<p><b>Numbers</b></p>	<p><b>Total Weighting (%)</b></p>
	Midterm Exams	1	20
	Assignment	6	20
	Application		
	Projects		
	Practice		
	Quiz	4	20
	Percent of In-term Studies (%)		60
	Percentage of Final Exam to Total Score (%)		40
	Attendance		

Workload	Activity	Total Number of Weeks	Duration (weekly hour)	Total Period Work Load			
	Weekly Theoretical Course Hours	14	3	42			
	Weekly Tutorial Hours						
	Reading Tasks	12	4	48			
	Studies	10	3	30			
	Material Design and Implementation						
	Report Preparing						
	Preparing a Presentation						
	Presentations						
	Midterm Exam and Preparation for Midterm Exam	1	15	15			
	Final Exam and Preparation for Final Exam	1	15	15			
	Other ( should be emphasized)						
	Total Workload			150			
	Total Workload / 25			6			
	Course Credit (ECTS)			6			
Contribution Level Between Course Learning Outcomes and Program Outcomes	No	Program Outcomes	1	2	3	4	5
	1	Sufficient knowledge on mathematics, science and computer engineering; ability to apply theoretical and practical knowledge in these areas to model and solve engineering problems					X
	2	Ability to identify, define, formulate and solve complex engineering problems; ability to choose and apply appropriate analysis and modelling methods for these purposes					X
	3	Ability to design a complex system, process, device, software, algorithm, or product under realistic constraints and circumstances to meet certain requirements; ability to apply modern design techniques for this purpose				X	
	4	Ability to choose, develop and use modern techniques and tools necessary for engineering applications; ability to effectively use computing technologies			X		
	5	Ability to design and implement systems or experiments to solve engineering problems, collect and interpret data to evaluate and analyze the results of solutions				X	
	6	Ability to work effectively in intradisciplinary and interdisciplinary teams or individually			X		
	7	Ability to efficiently prepare, evaluate and interpret reports					
	8	Ability to make presentations and conduct effective verbal and written communication in Turkish and English					
	9	Awareness of the necessity of lifelong learning; ability to access information, follow scientific and technological developments; ability to perpetually renew oneself					
	10	Awareness of professional and ethical responsibility, ability to act in accordance with ethical principles					

	11	Ability to apply knowledge on project management, risk management and change management					
	12	Awareness of entrepreneurship and innovation, ability to design and build sustainable systems					
	13	Ability to devise local and global solutions to contemporary issues considering the effects of engineering applications on health, environment and security					
	14	Awareness of the legal consequences of engineering solutions					
	15	Ability to apply knowledge on software development process and documentation rules	X				
	16	Knowledge on standards used in engineering applications	X				
	17	Awareness of occupational health and security, information security and privacy					
<b>The Course's Lecturer(s) and Contact Information</b>		Asst. Prof. Dr. Mehmet Demirci mdemirci@gazi.edu.tr					