Course Description Form	
Course Code and Name	CENG361 OBJECT ORIENTED ANALYSIS AND DESIGN (TECH.ELECT.)
Course Semester	5
Catalog Content	Comparative analysis of software development methods, Design criteria for the implementation of Object-Oriented Programming, UML
Textbook	Object-Oriented Methods: Principles and Practice (3rd Edition), Ian Graham, Addison-Wesley Professional, 2000
Supplementary Textbooks	- Information Modeling: An Object-Oriented Approach 1st Edition by Haim Kilov (Author), James Ross (Author), Prentice Hall; 1994 - Object-Oriented Analysis and Design with Applications (3rd Edition), Grady Booch et al., 2004.
Credit	6
Prerequisites of the Course **(** *Attendance Requirements***)**	There is no prerequisite or co-requisite for this course.
Type of the Course	Elective
Instruction Language	English
Course Objectives	
Course Learning Outcomes	1. Classical and modern methods 2. Comparative analysis of software development methods 3. Connection with the object 4. Coad-Yourdon and Rumbaugh object
Instruction Methods	The mode of delivery of this course is face to face.
Weekly Schedule	1.Week: Classical and modern methods 2.Week: Comparative analysis of software development methods 3.Week: Connection with the object 4.Week: Connection with the object 5.Week: Coad-Yourdon and Rumbaugh object-oriented analysis and design 6.Week: Coad-Yourdon and Rumbaugh object-oriented analysis and design 7.Week: Design criteria for the implementation of Object-Oriented Programming 8.Week: Design criteria for the implementation of Object-Oriented Programming 9.Week: Introduction to UML 10.Week: Introduction to UML 11.Week: Part-based development and design 12.Week: Part-based development and design 13.Week: Applications 14.Week: Applications

<table>
<tr><td>Teaching and Learning Methods

(These are examples. Please fill which activities you use in the course)</td><td>Weekly theoretical course hours: 3
Weekly tutorial hours
Reading Activities
Internet browsing, library work Designing and implementing materials Report preparing
Preparing a Presentation
Presentations
Preparation of Midterm and Midterm Exam
Final Exam and Preparation for Final Exam</td></tr>
<tr><td>Assessment Criteria</td><td>
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<tr><th></th><th>Numbers</th><th>Total Weighting (%)</th></tr>
<tr><td>Midterm Exams</td><td>1</td><td>30</td></tr>
<tr><td>Assignment</td><td>5</td><td>30</td></tr>
<tr><td>Application</td><td></td><td></td></tr>
<tr><td>Projects</td><td></td><td></td></tr>
<tr><td>Practice</td><td></td><td></td></tr>
<tr><td>Quiz</td><td></td><td></td></tr>
<tr><td>Percent of In-term Studies (%)</td><td></td><td>60</td></tr>
<tr><td>Percentage of Final Exam to Total Score (%)</td><td></td><td>40</td></tr>
<tr><td>Attendance</td><td></td><td></td></tr>
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Workload

Activity	Total Number of Weeks	Duration (weekly hour)	Total Period Work Load
Weekly Theoretical Course Hours	14	3	42
Weekly Tutorial Hours			0
Reading Tasks	12	4	48
Studies	10	3	30
Material Design and Implementation			0
Report Preparing			0
Preparing a Presentation			0
Presentations			0
Midterm Exam and Preparation for Midterm Exam	1	15	15
Final Exam and Preparation for Final Exam	1	15	15
Other (should be emphasized)			0
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				X	
8	Ability to make presentations and conduct effective verbal and written communication in Turkish and English					X
9	Awareness of the necessity of lifelong learning; ability to access information, follow scientific and technological developments; ability to perpetually renew oneself			X		
10	Awareness of professional and ethical responsibility, ability to act in accordance with ethical principles				X	

	11	Ability to apply knowledge on project management, risk management and change management				X	
	12	Awareness of entrepreneurship and innovation, ability to design and build sustainable systems			X		
	13	Ability to devise local and global solutions to contemporary issues considering the effects of engineering applications on health, environment and security			X		
	14	Awareness of the legal consequences of engineering solutions		X			
	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			X		
The Course's Lecturer(s) and Contact Information	Computer Engineering Department Chair bmbb@gazi.edu.tr						