Vocational School / Computer Programming

2024 - 2025 Academic Year

OBJECT ORIENTED PROGRAMMING

Syllabus

Course Description					
Name	**Code**	**Semester**	**T+A Hour**	**Credit**	**ECTS**
OBJECT ORIENTED PROGRAMMING	BPR2114993	Fall Semester	4+0	4	7

Prerequisites Courses	
Recommended Elective Courses	
Language of Instruction	Turkish
Course Level	Short Cycle (Associate's Degree)
Course Type	Required
Course Coordinator	Lect. Beyza KOYULMUŞ
Name of Lecturer(s)	Lect. Mustafa Çağın ARSLAN
Assistant(s)	
Aim	The aim of this course is to teach object oriented programming and to provide students with the ability to think analytically, analyze problems and design software.
Course Content	This course contains; Introduction to Object Oriented Programming - UML (Unified Modeling Language) ,Classes and Objects - Encapsulation and data hiding,Inheritance and Polymorphism,Abstraction and Interfaces,Object Oriented Analysis and Design,Exception Processing,Collections and Generics, File Processing and Input/Output Operations,Design Patterns,Graphical User Interface (GUI) Programming,Software Development Principles,Introduction to advanced OOP concepts,Project development using OOP principles,Project development using OOP principles.

Course Learning Outcomes	**Teaching Methods**	**Assessment Methods**
Defines a unified modeling language	12, 2, 9	A, E, F, G
Performs object-oriented analysis and design	2, 6, 9	A, E, F
Performs file processing and input/output operations	2, 6, 9	A, F
Knows the principles of software development	12, 2, 6, 9	A
Develop projects using OOP principles	2, 9	A, F

Teaching Methods	12: Problem Solving Method, 2: Project Based Learning Model, 6: Experiential Learning, 9: Lecture Method
Assessment Methods	A: Traditional Written Exam, E: Homework, F: Project Task, G: Quiz

Lecture Schedule

Sequence	**Topics**	**Preliminary Preparation**
1	Introduction to Object Oriented Programming - UML (Unified Modeling Language)	
2	Classes and Objects - Encapsulation and data hiding	
3	Inheritance and Polymorphism	
4	Abstraction and Interfaces	
5	Object Oriented Analysis and Design	
6	Exception Processing	
7	Collections and Generics	
8	File Processing and Input/Output Operations	
9	Design Patterns	
10	Graphical User Interface (GUI) Programming	
11	Software Development Principles	
12	Introduction to advanced OOP concepts	
13	Project development using OOP principles	
14	Project development using OOP principles	

Evaluation Methods	**Weight(%)**
Midterm Exam	40
General Exam	60

Resources
Lesson Notes