

**Vocational School / Computer Programming**

**2023 - 2024 Academic Year**

**PYTHON PROGRAMMING**

**Syllabus**

Course Description					
Name	Code	Semester	T+A Hour	Credit	ECTS
PYTHON PROGRAMMING	BPR2160440	Fall Semester	1+2	2	5
<b>Prerequisites Courses</b>					
<b>Recommended Elective Courses</b>					
<b>Language of Instruction</b>	Turkish				
<b>Course Level</b>	Short Cycle (Associate's Degree)				
<b>Course Type</b>	Elective				
<b>Course Coordinator</b>	Lect. Beyza KOYULMUŞ				
<b>Name of Lecturer(s)</b>	Lect. Muhammet ÇAĞATAY				
<b>Assistant(s)</b>	Pycharm				
<b>Aim</b>	The aim of this course is to teach the Python Programming language.				
<b>Course Content</b>	This course contains; Course Introduction,What is Python, Environment Setups, First Project,Variables,Data Types ( Numbers ),Data Types (Float, String, String Functions),Data Types (List, List Functions, Tuple),Data Types (Map, Dictionaries),Operators, Mathematical Operations,Conditional Statements - Decision Structures ( if, elif, else ),Loops ( While, For ),Functions,Global and Local variables, Lambda Expressions, recursive functions,Modules, File Operations,Object Oriented Programming (Class, Object, Access Designators, Inheritance, Abstraction, Polymorphism, Encapsulation).				
<b>Course Learning Outcomes</b>			<b>Teaching Methods</b>	<b>Assessment Methods</b>	
Uses control statements, loops, functions and lists			10, 12, 14, 16, 6, 9	A, E, G	
Understand programming concepts and techniques using Python Language			14, 16, 6, 8, 9	A, F	
Defines the concepts of encapsulation, polymorphism, inheritance and abstraction			16, 6, 8, 9	A, E	
Solves basic programming problems			14, 16, 6, 8	A, E, F	
Uses list functions			16, 6, 8, 9	A	
Learns file operations			12, 14, 16, 6, 8, 9	A	
Master data types and functions			14, 6, 8, 9	A, F	
<b>Teaching Methods</b>	10: Discussion Method, 12: Problem Solving Method, 14: Self Study Method, 16: Question - Answer Technique, 6: Experiential Learning, 8: Flipped Classroom Learning, 9: Lecture Method				
<b>Assessment Methods</b>	A: Traditional Written Exam, E: Homework, F: Project Task, G: Quiz				
<b>Lecture Schedule</b>					
<b>Sequence</b>	<b>Topics</b>	<b>Preliminary Preparation</b>			
1	Course Introduction				
2	What is Python, Environment Setups, First Project				
3	Variables				
4	Data Types ( Numbers )				
5	Data Types (Float, String, String Functions)				
6	Data Types (List, List Functions, Tuple)				
7	Data Types (Map, Dictionaries)				
8	Operators, Mathematical Operations				
9	Conditional Statements - Decision Structures ( if, elif, else )				
10	Loops ( While, For )				
11	Functions				
12	Global and Local variables, Lambda Expressions, recursive functions				
13	Modules, File Operations				
14	Object Oriented Programming (Class, Object, Access Designators, Inheritance, Abstraction, Polymorphism, Encapsulation)				
<b>Evaluation Methods</b>		<b>Weight(%)</b>			
Midterm Exam		40			
General Exam		60			
<b>Resources</b>					