

Vocational School / Computer Programming

2024 - 2025 Academic Year

CYBER SECURITY

Syllabus

Course Description					
Name	Code	Semester	T+A Hour	Credit	ECTS
CYBER SECURITY	BPR2266360	Spring Semester	3+0	3	5
Prerequisites Courses					
Recommended Elective Courses					
Language of Instruction	Turkish				
Course Level	Short Cycle (Associate's Degree)				
Course Type	Elective				
Course Coordinator	Lect. Beyza KOYULMUŞ				
Name of Lecturer(s)	Lect. Malek Jamal Abdulah MALKAWI				
Assistant(s)					
Aim	Aims to inform and develop information systems, network security, computer security, software security and security vulnerabilities of computer networks against security threats encountered in computer networks, to understand the threats and measures to be taken against cyber attacks.				
Course Content	This course contains; Introduction to the Course and General Information about the Course Objectives, Introduction to Security,Basic Security Concepts,Introduction to Cryptology,Types of Encryption,Network security; firewalls, intrusion detection and prevention systems,Network security; firewalls, intrusion detection and prevention systems-2,Secure Software Development,Security of Web Applications,Infiltration Trials,Investigation of Malicious Software,Network Security,Security Technologies and Security Models,Project Presentations,Project Presentations.				
Course Learning Outcomes		Teaching Methods		Assessment Methods	
Explains basic security concepts.		10, 12, 14, 16, 19, 3, 5, 6, 8, 9		A, E, F	
Defines the concepts of cryptology.		12, 2		A, E, F, G	
Ağ güvenliği; güvenlik duvarları, saldırı tespit ve önleme sistemlerini bilir.		14, 6, 9		A, E	
Develop secure software.		14, 6, 8, 9		A, E, F	
Analyzes malicious software.		14, 6, 9		A, E, F	
Uses security technologies and security models.		14, 6, 8, 9		A, E	
Teaching Methods	10: Discussion Method, 12: Problem Solving Method, 14: Self Study Method, 16: Question - Answer Technique, 19: Brainstorming Technique, 2: Project Based Learning Model, 3: Problem Baded Learning Model, 5: Cooperative Learning, 6: Experiential Learning, 8: Flipped Classroom Learning, 9: Lecture Method				
Assessment Methods	A: Traditional Written Exam, E: Homework, F: Project Task, G: Quiz				
Lecture Schedule					
Sequenc e	Topics	Preliminary Preparation			
1	Introduction to the Course and General Information about the Course Objectives, Introduction to Security				
2	Basic Security Concepts				
3	Introduction to Cryptology				
4	Types of Encryption				
5	Network security; firewalls, intrusion detection and prevention systems				
6	Network security; firewalls, intrusion detection and prevention systems-2				
7	Secure Software Development				
8	Security of Web Applications				
9	Infiltration Trials				
10	Investigation of Malicious Software				
11	Network Security				
12	Security Technologies and Security Models				
13	Project Presentations				
14	Project Presentations				
Evaluation Methods		Weight(%)			
Midterm Exam		40			
General Exam		60			

Resources