Course Description

Course Code	YZ 441
Course Name	CYBER SECURITY
Prerequisite Courses	none
Language of the Course	The English
Course Coordinator	
Instructor(s)	
Course Assistants	
The aim of the course	The aim of this course is to provide basic knowledge about cyber security in the current situation, historical background, information laws, cyber infiltration and defense techniques
Course Content	Cyber security overview, Fundamentals of cyber security, cyber security awareness, Malware, Cyber terrorism, Big data approaches for cyber security, Security in computer networks, TCP_IP Security, ISO / IEC-27032 Cyber security guide, Linux installation and basic commands, Security protocols and structures that use them, Basic security Technologies, Cyber security on mobile devices, Traffic analysis, Penetration tests

Weekly Course Content

Week 1	Cyber security overview
Week 2	Fundamentals of cyber security
Week 3	Cyber security awareness
Week 4	Malware
Week 5	Cyber terrorism
Week 6	Big data approaches for cyber security
Week 7	Security in computer networks
Week 8	Midterm exam.
Week 9	TCP_IP Security
Week 10	Linux installation and basic commands
Week 11	ISO / IEC-27032 Cyber security guide
Week12	Security protocols and structures that use them
Week 13	Basic security technologies
Week 14	Cyber security on mobile devices
Week 15	Final exam.

Course Learning Outcomes

1	Discuss the technologies used in cyber space.
2	Acquire basic knowledge of cybercrime and network security.
3	Have information about informatics law, international standards and counter-algebra.

Contribution of the Course to Program Qualifications	Contribution Level
01	The student will have the ability to apply analytical approach, mathematics and science knowledge in software and engineering issues.	4
02	The student will have the ability to identify, define, formulate and solve a problem in software and computer systems.	5
03	The student will have gains scientific research skills in software and engineering problems, has the ability to design a system, part or process.	5
04	The student will have the ability to use the design capability, techniques and tools required for engineering applications.	3
05	The student will have the ability to design, implement and interpret experimental work and software projects by analyzing the results.	5
06	The student will have the ability to work between disciplines and teamwork.	5
07	The student will have the ability to work in international environments and adapt to different cultures.	4
08	The student will have verbal and written communication skills in Turkish and English.	5
09	The student will have the awareness of the necessity of lifelong learning and the ability to realize it.	5
10	The student will gain knowledge of legal issues with the awareness of professional and ethical responsibility.	5
11	The student will have managerial skills (leadership, organization, time and risk management, quality awareness, efficiency, etc.).	4
12	The student will have the ability to participate in social activities, to acquire regular sports habits and to use time in the best way.	5
13	The student will have the ability to find unusual ways and produce projects.	5
14	The student will have professional self-confidence, being an entrepreneur and taking initiative.	3
15	It is sensitive about the problems of the age and looks after the national interests.	5

ECTS WORKLOAD

	Number	Duration (hours)	Number*Duration
Face to face education	14	2	28
Out-of-class study time (pre-study, reinforcement)	3	5	15
Homeworks	2	7	14
Presentation / Seminar preparation	3	1	3
Quizzes	0	0	0
Preparation for midterm exams	1	7	7
midterm exams	1	2	2
Project (Semester assignment)	1	8	8
Lab	0	0	0
field work	0	0	0
Preparation for the final exam	1	15	15
Semester final exam	1	2	2
Research	0	0	0
TOTAL WORKLOAD			94
ECTS			**3**

Evaluation

SEMESTER EVALUATION	Number	Contribution Percentage
Midterm	1	20
Quiz	0	0
Homework	2	20
SEMESTER TOTAL		**40**
Contribution rate of mid-term evaluations to success		40

Contribution rate of the final exam to success		60
GRAND TOTAL		**100**

RESOURCES	
Textbook	1 Marjie T. Britz, Computer Forensic and Cyber Crime, Pearson.
	2 H.Alparslan Akyıldız, Uygulamalarla Siber Güvenliğe Giriş, Gazi Kitapevi, Ankara
Helpful Resources	In addition lesson content is compiled from multiple sources