



YOZGAT BOZOK UNIVERSITY FACULTY OF ARTS AND SCIENCES
CHEMISTRY DEPARTMENT COURSE PLAN

Course Code	Course Title	Semester	Course Type (C/E)	T+A+L (Time/Week)	Credit	ECTS	Course Language
SIB001	Cyber Security Fundamentals	Fall	C	2+0+0		2	Turkish

COURSE INFORMATION

Course Catalog Description (Content)	This course; It consists of basic cyber security concepts, threats, vulnerabilities, attacks, cybercriminals and security experts, cyber defense methods, detection, mitigation and prevention techniques of attacks, information security and privacy.
The Aim of the Course	The main aim of this course is to teach students the basic concepts about cyber security, to develop students' perspectives in this field and to lay a foundation for further studies in the field of cyber security.
Course Level	Bachelor degree
Course Language	Turkish
Teaching method	(X) Formal () Online () Mixed/Hybrid
Teaching Staff of the Course	Related Lecturers
Prerequisite Course(s) of the Course	
Learning Outcomes from the Course	<ol style="list-style-type: none">1. Can argue about cyber security.2. It can develop a solution proposal against different security vulnerabilities.3. Explain the detection methods against different attacks.4. Explain the mitigation methods against different attacks.5. Explain the prevention methods against different attacks.6. Explain the concepts of confidentiality, integrity and usability.

COURSE CONTENT

Week	Theory	Practice/Laboratory
1	Introduction to cyber security	
2	Cyber criminals and security experts	
3	Cyber security cube	
4	Cyber security threats	
5	Vulnerabilities and attacks	
6	Privacy concept	
7	Protecting privacy	
8	Integrity concept	
9	Ensuring integrity	
10	Usability concept	
11	Ensuring availability	
12	Protecting the cybersecurity space 1	
13	Protecting the cybersecurity space 2	
14	Cyber security expertise	
15	Final Exam	

Course Learning Resources

- Lecture Notes
- Cisco Networking Academy

ASSESSMENT CRITERIA

Work Activities During the Semester	Number	Contribution
Homework	1	%30
Practice		
Forum/ Discussion Application		
Short Exam (Quiz)	2	%35
Ratio Of Semester Studies To Semester Success (%)		%40
Ratio of Final to Success (%)	1	%60
Total		%100

COURSE WORKLOAD TABLE

Activity	Total Weeks	Duration (Weekly Hours)	Total Workload
Theory	14	2	28
Practice			
Forum/ Discussion Application			
Reading	10	1	10
Internet Scanning, Library Study	10	1	10
Material Design, Application			
Report Preparation			
Presentation Preparation			
Presentation			
Final Exam	1	1	1
Preparation for the Final Exam	1	6	6
Other(s) (Specify:)			
Total Workload			
Total Workload / 25 (s)			55/25
ECTS Credits of the Course			55/25 \cong 2

Note: The workload of the course will be determined by the instructor on a per-course basis.

PROGRAM LEARNING OUTPUTS CONTRIBUTION LEVELS

No	Program Learning Outputs	1	2	3	4	5
1	Gains extensive knowledge about the basic chemical properties of matter and uses this knowledge in daily life, industrial scale, and practical chemistry and shares them with the society.	X				
2	Performs experiments, collects data, interprets, evaluates results, defines problems parallel to current technological developments, produces solutions against problems encountered in the laboratory.	X				
3	Calculates and processes chemical information and data.	X				
4	Applies her/his knowledge and understanding of chemistry to the solution of unconventional qualitative and quantitative problems.	X				
5	Defines and comprehends chemical concepts and theories in Inorganic Chemistry, Organic Chemistry, Physical Chemistry, Analytical Chemistry, Biochemistry.	X				
6	Can conduct research in the light of scientific data on any subject in the field of chemistry.	X				
7	Writes, presents, discusses scientific material, and presents it orally to a knowledgeable audience.	X				

8	Brings a chemical approach to the solution of environmental problems, makes environmental analyzes and reports.	X				
9	Knows a foreign language at a level to read and understand the basic terms and processes of the chemist profession.	X				
10	Can use computer software and information and communication technologies at the level required by the field.	X				
11	Adapts and transfers the knowledge gained in the field to secondary education.	X				
12	Apart from the field of chemistry, she/he gains knowledge in different branches of science that she feels close to.	X				
13	Carries out a study independently, makes group work and gains the awareness of taking responsibility.	X				
14	They can develop a positive attitude towards lifelong learning and constantly renew their professional knowledge and skills.	X				
15	Have sufficient awareness of the universality of social rights, social justice, quality culture and protection of cultural values, environmental protection, occupational health and safety.	X				

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