DATA SECURITY

1	Course Title:	DATA SECURITY	
2	Course Code:	BM6025	
3	Type of Course:	Optional	
4	Level of Course:	Third Cycle	
5	Year of Study:	1	
6	Semester:	1	
7	ECTS Credits Allocated:	6.00	
8	Theoretical (hour/week):	3.00	
9	Practice (hour/week):	0.00	
10	Laboratory (hour/week):	0	
11	Prerequisites:	none	
12	Language:	Turkish	
13	Mode of Delivery:	Face to face	
14	Course Coordinator:	Prof. Dr. PINAR KIRCI	
15	Course Lecturers:	yok	
16	Contact information of the Course Coordinator:	Bilgisayar müh. bölüm binası 1. kat oda 110 pinarkirci@uludag.edu.tr	
17	Website:		
18	Objective of the Course:	To teach the basic concepts and principles of information security, the security requirements of information systems and methodological design strategies for security.	
19	Contribution of the Course to Professional Development:	At the end of this course the student will Understand the basics of the security services and cryptographic protocols. Learn the necessary skills for a secure system design and knowledge necessary to assess the security of a system.	
20	Learning Outcomes:		
		1	Basic security notions: confidentiality, integrity, availability, Security threats, hacking, social engineering, legal and social issues
		2	Operational and physical security issues, security policy formation and enforcement, Basic concepts of cryptography: encryption, hash functions, public key encryption, Authentication models: password-based, token-based, biometrics-based authentications
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21	Course Content:		
	Course Content:		
Week	Theoretical		Practice

1	Basic security notions: confidentiality, integrity, availability	
2	Security threats, hacking, social engineering, legal and social issues	
3	Operational and physical security issues, security policy formation and enforcement	
4	Basic concepts of cryptography: encryption, hash functions, public key encryption	
5	Authentication models: password-based, token-based, biometrics-based authentications	
6	Authorization models: discretionary access control, role based access control, mandatory access control	
7	Program security: malwares, basic notions of secure programming	
8	Program security: malwares, basic notions of secure programming	
9	Operating system security: protection models, security kernels, malware protection	
10	Operating system security: protection models, security kernels, malware protection	
11	Network security: firewalls, intrusion detection and response systems	
12	Network security: firewalls, intrusion detection and response systems	
13	Management in network environments	
14	Materials:	
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22	Assesment	
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24	**ECTS / WORK LOAD TABLE**	

Activites	Number	Duration (hour)	Total Work Load (hour)
Theoretical	14	3.00	42.00
Practicals/Labs	0	0.00	0.00
Self study and preperation	0	0.00	0.00
Homeworks	0	0.00	0.00
Projects	0	0.00	0.00
Field Studies	0	0.00	0.00
Midterm exams	1	60.00	60.00
Others	0	0.00	0.00
Final Exams	1	80.00	80.00
Total Work Load			182.00
Total work load/ 30 hr			6.07
ECTS Credit of the Course			6.00

Quiz	0	0.00
Final Exam	1	60.00
Total	2	100.00
Contribution of Term (Year) Learning Activities to Success Grade		40.00
Contribution of Final Exam to Success Grade		60.00
Total		100.00
Measurement and Evaluation Techniques Used in the Course		written exam

In Computing, Fourth Edition. Prentice Hall.

Addison Wesley.

Ltd. Edition, Wiley.

25	CONTRIBUTION OF LEARNING OUTCOMES TO PROGRAMME QUALIFICATIONS															
	PQ1	PQ2	PQ3	PQ4	PQ5	PQ6	PQ7	PQ8	PQ9	PQ10	PQ11	PQ12	PQ13	PQ14	PQ15	PQ16
ÖK1	2	1	3	1	1	1	2	1	2	2	1	1	1	1	1	1
ÖK2	1	1	1	3	1	1	1	4	1	1	1	1	1	2	1	1
LO: Learning Objectives PQ: Program Qualifications																
Contribution Level:	1 very low			2 low			3 Medium			4 High			5 Very High			