

Course name: CENG 570- Advanced Computer Security					Department: Computer Engineering			
Semester	Methods of Education							Credit (ECTS)
	Lecture	Recitation	Lab	Project (F. Study)	HomeW	Others	Total	
1	42	42	0	80	40	21	225	7,5
Language	English							
Compulsory or Elective	Elective							
Prerequisites	None							
Course Contents	This course covers a set of advanced topics in computer security. The focus is on principles, architectures, and protocols used in computer security systems. Principles of information, computer and network security are discussed. Cryptography basics, network security fundamentals, malicious software types, web & browser security, physical security, application security, security models and systems.							
Course Objectives	<ul style="list-style-type: none"> - To fill gaps in students' computer security knowledge - To grasp the current directions of computer security research - To provide in-depth coverage some research areas - To prepare students to conduct research 							
Learning Outcomes and Competences	<ul style="list-style-type: none"> -To develop literature searching and literature review techniques. -To analyze and evaluate published results. -To improve oral and written communications skills. -To better understand experimental methodology. -To appreciate performance evaluation issues. 							
Textbook and/or References	1- "Introduction to Computer Security", Goodrich & Tamassia, Pearson 2- "Information Security: Protecting the Global Enterprise", D Pipkin 3- "Computer Security: Principles and Practice 2/e", Stallings							
Assessment Criteria				If any, mark as (X)	Percentage (%)			
	Midterm Exams			X	15			
	Quizzes							
	Homeworks							
	Projects			X	25			
	Term Paper							
	Laboratory work							
	Other							
	Final Exam			X	60			
Instructors	Assist Prof Dr Lami Kaya							
Week	Subject							
1	Introduction to Computer Security Concepts							
2	Introduction to Computer Security Concepts							
3	Cryptography Introductory Concepts							
4	Cryptography Advanced Topics & Algorithms							
5	Operating System Security							
6	Malicious Software							
7	Network Security I							
8	Network Security II							
9	Browser & Web Security							
10	Physical Security							
11	Security Models and Practice							
12	Application Security							
13	Class Presentations							
14	Class Presentations							