

Course Description Form	
Course Code and Name	5051329 Information and Computer Security
Course Semester	Fall-Spring
Catalog Content	Computer, security and computer security terms, Security Engineering, Threats and information security basics, Techniques and technologies in information security, Computer Security models and standards, Software security and developing secure software, Cryptology and cryptanalysis, symmetric and asymmetric algorithms, e-signature and public key infrastructure, Access and identity control, information security technologies, Intrusion detection and presentation systems, firewalls, Filtering devices
Textbook	How to Break Software Security, J. Whittaker, H. Thompson, 0-32-119433-0, Addison Wesley, 1 May, 2003
Supplementary Textbooks	.NET Security and Cryptography (The Integrated .Net Series From Object Innovations), Peter Thorsteinson, 013100851x, Prentice Hall Ptr, 2003. Data Privacy: Encryption and Information Hiding, D Salomon, 0387003118, 480 pages, Springer-Verlag New York Inc., 2003. Cryptography and Public Key Infrastructure on the Internet, K.S. Schmech, 047084745X , John Wiley and Sons Ltd, 2003.
Credit	9
Prerequisites of the Course (Attendance Requirements)	No prerequisites
Type of the Course	Compulsory
Instruction Language	Turkish
Course Objectives	Giving information about the course contents and trains students in the organizing and the technical realization and security of information and computers.
Course Learning Outcomes	1- Ability to produce both theoretical and practical solutions to problems that may be encountered in information and computer security issues. 2- Ability to providing personal information security. 3- Create, use and control the electronic environments safely. 4- They will have knowledge about computer and security issues and will be aware of current threats and dangers.
Instruction Methods	Face to face
Weekly Schedule	1. Week Computer, security and computer security terms 2. Week Security Engineering, 3. Week Threats and information security basics, 4. Week Techniques and technologies in information security 5. Week Computer Security models and standards 6. Week Software security and developing secure software 7. Week Cryptology and cryptanalysis 8. Week Symmetric and asymmetric algorithms 9. Week E-signature and public key infrastructure, 10. Week Access and identity control 11. Week Information security technologies, Intrusion detection and presentation systems, firewalls, Filtering devices 12. Week Information security technologies, Intrusion detection and presentation systems, firewalls, Filtering devices 13. Week Presentations of research projects 14. Week Presentations of research projects
Teaching and Learning Methods <i>(These are examples. Please fill which activities you use in the course)</i>	Weekly theoretical course hours Reading Activities Internet browsing, library work Designing and implementing materials Report preparing Preparing a Presentation Presentations

	Preparation of Midterm and Midterm Exam Final Exam and Preparation for Final Exam								
Assessment Criteria		Numbers	Total Weighting (%)						
	Midterm Exams	1	20						
	Assignment	6	12						
	Application	1	4						
	Projects	1	4						
	Practice								
	Quiz								
	Percent of In-term Studies (%)		40						
	Percentage of Final Exam to Total Score (%)		60						
	Attendance								
Workload	Activity	Total Number of Weeks	Duration (weekly hour)	Total Period Work Load					
	Weekly Theoretical Course Hours	14	3	42					
	Weekly Tutorial Hours	14	2	28					
	Reading Tasks	14	3	42					
	Studies	14	2	28					
	Material Design and Implementation	3	10	30					
	Report Preparing	6	2	12					
	Preparing a Presentation	3	5	15					
	Presentations	1	3	3					
	Midterm Exam and Preparation for Midterm Exam	1	10	10					
	Final Exam and Preparation for Final Exam	1	15	15					
	Other (should be emphasized)	0	0	0					
	Total Workload			225					
	Total Workload / 25			9					
	Course Credit (ECTS)			9					
Contribution Level Between Course Learning Outcomes and Program Outcomes	No	Program Outcomes			1	2	3	4	5
	1	Reaches the expansion of knowledge by conducting scientific research in the field of engineering and evaluation, interpretation and application of information.						X	
	2	Has extensive and in depth knowledge including the latest techniques, methods applied and their limitations in engineering.						X	
	3	Completes and applies knowledge by using scientific methods by using limited or missing data and integrates information from different disciplines.					X		

	4	Be aware of new and developing practices of the profession, examines and learns when needed.				X	
	5	Defines and formulates problems related to the field, develops methods to solve them and applies innovative methods in solutions.				X	
	6	Develops new and / or original ideas and methods, designs complex systems or processes and develops innovative / alternative solutions in their designs.			X		
	7	Designs and applies theoretical, experimental and modeling based researches, examines and solves the complex problems encountered in this process.				X	
	8	Works effectively in disciplinary and multidisciplinary teams, leads such teams and develops solution approaches in complex situations, works independently and takes responsibility.				X	
	9	Communicates oral and written using a foreign language at least at the level of European Language Portfolio B2.				X	
	10	Conveys the process and results of the studies in written and oral form in a systematic and clear manner in national and international environments within or outside the field.				X	
	11	Knows the social, environmental, health, security, legal aspects of engineering applications; project management, and business life applications and be aware of the constraints of these engineering applications.			X		
	12	Considers social, scientific and ethical values in the stages of data collection, interpretation and announcement and in all professional activities.				X	
The Course's Lecturer(s) and Contact Informations	Name Surname: Prof.Dr.Şeref SAĞIROĞLU E-mail address: ss@gazi.edu.tr						