



University of Tehran
School of Electrical and Computer Engineering

Course:	8101637 – Network Security									
Course type:	EE*						CE*			Credit: 3
	Com	E	P	B	Con	D	SW	HW	IT	
	Required	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Elective	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Level:	Undergraduate <input type="checkbox"/> Graduate <input checked="" type="checkbox"/>									
Co-requisite(s):										
Prerequisite(s):										
Prerequisite by topic:										
Textbook(s):	[1] W. Stallings, “Cryptography and network security”, 5 th ed., <i>Prentice Hall</i> , 2011.									
Coordinator:	Sadaf Salehkalaibar, Assistant Professor, School of ECE									
Goals:	To learn the protocols of different layers of a network and intrusion detection systems.									
Outcome:	Upon successful completion of the course, students will be able 1. To learn basics of encryption and decryption, 2. To work with security protocols in different layers of a network, 3. To implement intrusion detection systems.									
Topics:	1) Introduction to Cryptography (Stream and block ciphers) 2) Zero-knowledge systems and hash functions 3) Authentication and digital signature 4) Key management 5) Authentication protocols 6) Transport layer security 7) Application layer security 8) E-mail security 9) IP security 10) Intrusion detection systems 11) Viruses 12) Firewalls									
Computer usage:										
Assignments:										
Projects:										

Grading:	Assignments: 15 % Projects: ... % Quizzes: 15 % Midterm exams: 30% Final exam: 40 %
Further readings:	
Prepared by:	Sadaf Salehkalaibar
Date:	11 th December 2017

*EE: Electrical Engineering		CE: Computer Engineering	
Com	Communications	SW	Software
E	Electronics	HW	Hardware
P	Power	IT	Information Technology
B	Bioelectronics		
Con	Control		
D	Digital System		