

Course Name : Security in Computer Networks							
Course Code	Course Type	Regular Semester	Lecture (hours/week)	Seminar (hours/week)	Lab. (hours/week)	Credits	ECTS
CMP 409	B	Fall	3.00	1.00	0.00	3.50	6.00
<b>Lecturer</b> Denard Veshi, Prof. Assoc. Dr.							
<b>Assistant</b> Rexhion Qafa, Msc							
<b>Course language</b> Albanian							
<b>Course level</b> Master							
<b>Description</b> Techniques for achieving security in multi-user computer systems and distributed computer systems: Basics of cryptography, network security applications and system security, conventional encryption and message confidentiality, public-key cryptography and message authentication, authentication applications. Electronic mail, IP, web, and network management security. Intruders, viruses, and firewalls.							
<b>Objectives</b>							
<b>Core Concepts</b> Encryption algorithms, cryptography, hash functions							
Course Outline							
Week	Topic						
1	Introduction and Computer Security Concepts						
2	Cryptography - Symmetric Encryption and Message Confidentiality						
3	Public-Key Cryptography and Message Authentication						
4	Part II: Network Security Applications - Key Distribution and User Authentication						
5	Network Access Control and Cloud Security						
6	Transport-Level Security						
7	Wireless Network Security						
8	Midterm Exam						
9	Electronic Mail Security						
10	IP Security						
11	Part III: System Security - Malicious Software						
12	Intruders						
13	Firewalls						
14	Network Management Security						
15	Legal and Ethical Issues						
16	Final Exam						
<b>Prerequisites</b>	The student must attend the course at a minimum rate of 75%.						
<b>Literature</b>	• Core Textbook: William Stallings, Network Security Essentials: Applications and Standards, 6th Edition. Pearson. 2017. ISBN-13: 9780134527338.						
<b>References</b>	• Charlie Kaufman, Radia Perlman, and Mike Speciner, Network Security: PRIVATE Communication in a PUBLIC World, Prentice Hall, ISBN 0-13-046019-2						

<b>Course Evaluation</b>			
<b>In-term Studies</b>	<b>Quantity</b>	<b>Percentage</b>	
Midterms	1	40	
Quizzes	0	0	
Projects	0	0	
Term Projects	0	0	
Laboratory	0	0	
Class Participation	0	0	
<b>Total in-term evaluation percent</b>		<b>40</b>	
<b>Final exam percent</b>		<b>60</b>	
<b>Total</b>		<b>100</b>	
<b>ECTS Workload (Based on Student Workload)</b>			
<b>Activities</b>	<b>Quantity</b>	<b>Duration (hours)</b>	<b>Total (hours)</b>
Course duration (Including the exam week: 16x Total hours of the course)	16	4	64
Study hours outside the classroom (Preparation, Practice, etc.)	14	5	70
Duties	0	0	0
Midterms	1	4	4
Final Exam	1	8	8
Other	0	0	0
<b>Total Work Load</b>			<b>146</b>
<b>Total Work Load / 25 (hours)</b>			<b>5.84</b>
<b>ECTS</b>			<b>6.00</b>