Republic of Iraq The Ministry of Higher Education & Scientific Research 2024-2023





Flow up of implementation syllabus

University: Thi-Qar College: Pure science

Department: Computer Science

Stage: Fourth

Lecturer name: Mishall Hammed Academic Status: Assoc. Prof.

Qualification: PhD.

Place of work: Education College

Course Instructor	Mishall Hammed Awaad Al-Zubaidie				
E_mail	mishall_zubaidie@utq.edu.iq				
Title	Data Security				
Course Coordinator	Mishall Hammed Awaad Al-Zubaidie				
Course Objective	To teach students to understand data security principles, encryption algorithms, attacks and their classifications, and successive algorithm developments to prevent hacks.				
Course Description	This course is divided into two main parts: classical and modern algorithms. Classical algorithms are divided into two categories: commutation and transformation. Modern algorithms are divided into symmetric algorithms and asymmetric algorithms.				
Textbook	Stallings, William, 'Cryptography and Network Security', Prentice Hall, 2004.				
Course Assessment	Term Tests	Laboratory	Quizzes	Project	Final Exam
	25%	15%	10%	-	50%
General Notes	This course composed of two terms with two hour theory and two hours for practical.				

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Course weekly Outline

week	Date		Lab. Experiment Assignments	Notes
1	17/9/2023	What security is about in general?		
2	24/9/2023	Data Security Concepts		
3	01/10/2023	Data security in past and present		
4	08/10/2023	Authentication and Classification of attacks		
5	15/10/2023	Attack classifications		
6	22/10/2023	Basic Terminology		
7	29/10/2023	Cryptanalysis and Attacks on		
8	05/11/2023	Digital Signatures		
9	12/11/2023	Classical Encryption		
10	19/11/2023	Monoalphabetic Ciphers		
11	26/11/2023	Polyalphabetic Ciphers		
12	03/12/2023	Polyalphabetic Ciphers		
13	10/12/2023	Polygraphic Ciphers		
14	17/12/2023	Polygraphic Ciphers		
15	24/1/2023	Exams		
16	31/1/2023	Exams		

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Half-year Break

17	28/1/2024	Transposition Ciphers
18	04/2/2024	Transposition Ciphers
19	11/2/2024	Transposition Ciphers
20	18/2/2024	Transposition Ciphers
21	25/2/2024	Symmetric and Asymmetric
		Encryption
22	03/3/2024	Private Key - Block Cipher
23	10/3/2024	Types of block ciphers - DES
24	17/3/2024	Private Key - Stream Cipher
25	24/3/2024	Types of stream ciphers - RC4
26	31/3/2024	Public-Key Cryptosystems
27	07/4/2024	Conventional and Public-Key
28	14/4/2024	Applications for Public-Key
29	21/4/2024	RSA concepts
30	28/4/2024	RSA Encryption
31	05/5/2024	RSA Decryption
32	12/6/2024	Exams

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Instructor Signature(Lab.)	Insti	ructor Signature(Theoretical)
1 st Scientific committee member	2 nd Scientific committee member	3 rd Scientific committee member
Head of Scientific committee		Dean