

1. Course Name:	
Cyber security principles	
2. Course Code:	
3. Semester / Year: 2025-2026	
Semester	
4. Description Preparation Date:	
17-11-2025	
5. Available Attendance Forms:	
Weekly (Theory:2)	
6. Number of Credit Hours (Total) / Number of Units (Total)	
Theory: 30 Hours Total: 40 hours Total Units: 4	
7. Course administrator's name (mention all, if more than one name)	
Name: Dr. Faisal Ghazi Bdiwi Email: faisal.ghazi@muc.edu.iq	
8. Course Objectives	
Course Objectives	Give an advanced base to understand cybersecurity models Learn about methods in cyber attacks Dr into the tools and methods of cyber attacks Study of the characteristics of the information security sys Analysis of data and methods of cyberspace penetrations
9. Teaching and Learning Strategies	
Strategy	-Theoretical lectures - practical laboratories – methodological books - resources (Internet) -Using mod devices to deliver the material to students using data show in addition to the smart board.
1. Course Structure	
Week	Required Learning Outcomes
1	Introduction to cyber security
2	Requirements for computer protection, Confidentiality, threats to confidentiality
3	Integrity,Availability,Authentication,Non-repudiation
4	Assuring data validity,Authorization
5	security mechanisms:Trust,Authentication,Chain of Authority
6	Accountability
7	Access Control,Permissions-Based Access Control,private key
8	Understanding Hacking,Types of Hackers,Vectors That Hackers Exploit,Hacking Techniques
9	Firewall,Firewall Concept, Conditions, Security and Transparency
10	Firewall Security,Firewall Limitation,Firewalls types
11	Access Control,
12	-Types of Cyber Threats
13	Social Engineering:
14	-Physical Security Attacks,Viruses and Malware:

15	Term Exam
2. Learning and Teaching Resources	
Cyber-security-essentials, James graham, Ryan Olson, Richard Howard,Recommended books and references (scien journals, reports, Electronic References, Websites	

Course Description Form