Course Description Form

1. Course Name: **Authentication and Access Control**
2. Course Code: **CSCS4221**
3. Semester / Year: 2nd course \ 2024-2025
4. Description Preparation Date: Jan/2025
5. Available Attendance Forms: Presence in the Class
6. Number of Credit Hours (Total) / 30 hours/ 2 units
7. Course administrator's name (mention all, if more than one name)
ekhlas.k.gbashi@uotechnology.edu.iq أ.د .اخلاص خلف
8. Course Objectives

Course Objectives	• **Students can explain what it means to verify someone's identity a compare how verification works in different situations.** • **Students can describe how and why a username and password combinat is used for authentication.** • **Students can summarize some high-level weaknesses to using shared secrets authenticate to a website or computer**

9. Teaching and Learning Strategies

Strategy	Methodological books, resources (internet and library), dialogues reinforced w illustrative examples,Theoretical lectures, laboratory laboratories, practical tasks, us modern devices to present practical ideas to students (data show, electronic board)

10· Course Structure

Week	Hours	ILOs	Unit/Module or Topic Title	Teaching Method	Assessment Method
1	2 hours	1,3,5	Define the Authentication, Authentication goals, Authentication requirements	classroom	Attendance + answer discussion questions
2	2 hours	1,3,5	Human Authentication, Machine authentication , Authentication technologies	Classroom	Attendance + answer discussion questions
3	2 hours	1,3,5	Remote User Authentication Principles ,Remote User Authentication Using Symmetric Encryption	classroom	Attendance + answer discussion questions
4	2 hours	1,3,5	Define Access control, Access control required tools	classroom	Attendance + answer discussion questions
5	2 hours	1,3,5	Identification, Authentication, Authorization	classroom	Attendance + answer discussion questions
6	2 hours	1,3,5	Fingerprints , Retina scan, Iris scan, Voice print , Facial scan process, Biometric performance	classroom	Attendance + answer discussion questions
7	2 hours	1,3,5	Mid Exam	classroom	Attendance + answer discussion questions
8	2 hours	1,3,5	Types of Access control, Administrative control, Technical control	classroom	Attendance + answer discussion questions
9	2 hours	1,3,5	Technical control, Physical control, Categories of access control	classroom	Attendance + Assignment
10	2 hours	1,3,5	Access Control Matrix , ACLs and Capabilities	classroom	Attendance + answer discussion questions
11	2 hours	1,3,5	Confused Deputy , Multilevel Security Models	classroom	Attendance + Homework

12	2 hours	1,3,5	Bell-LaPadula , Biba's Model	classroom	Attendance + answer discussion questions
13	2 hours	1,3,5	Covert Channel , Inference Control	classroom	Attendance + answer discussion questions
14	2 hours	1,3,5	Introduction to CAPTCHA	classroom	Attendance + Assignment
15	2 hours	1,3,5	Exam		Scores

11.Course Evaluation

Distributing the score out of 100 according to the tasks assigned to the student such as daily preparation, daily oral, monthly, or written exams, reports .... etc

12.Learning and Teaching Resources

Required textbooks (curricu books, if any)	• Cryptography and Network Security Principles and Pract FifthEdition,William stallings • Https://www.chipsystems.in/download_syllabus.php?sbs=QURBQIQucGRm • INFORMATION SECURITYPRINCIPLESANDPRACTICE, M Stamp,San Jose State University,2006
Main references (sources)	• INFORMATION SECURITYPRINCIPLESANDPRACTICE, Mark Stamp,San Jose State University,2006
Recommended books and references (scientific journals, reports…)	• INFORMATION SECURITYPRINCIPLESANDPRACTICE, Mark Stamp,San Jose State University,2006
Electronic Referenc Websites	Internet websites