	Ministry of Higher Education and Scientific Research - Iraq University of Technology Department of Computer Science Information System Branch	

MODULE DESCRIPTOR FORM
نموذج وصف المادة الدراسية

Module Information معلومات المادة الدراسية					
Module Title	AUTHENTICATION AND ACCESS CONTROL			**Module Delivery**	
Module Type	C			**-Theory Lecture**	
Module Code	AUAC215				
ECTS Credits	4.00				
SWL (hr/sem)	100				
Module Level	2		**Semester of Delivery**		
Administering Department	Computer science		**College**	University of technology	
Module Leader	Ekhlas Khalaf		**e-mail**	Ekhlas.k.gbashi@uot	
Module Leader's Acad. Title	Prof.Dr.		**Module Leader's Qualification**	PhD.	
Module Tutor	None		**e-mail**	None	
Peer Reviewer Name			**e-mail**		
Review Committee Approval			**Version Number**		

Relation With Other Modules العلاقة مع المواد الدراسية الأخرى			
Prerequisite module	CYSP114	**Semester**	Two
Co-requisites module	MACO314	**Semester**	Five

Module Aims, Learning Outcomes and Indicative Contents أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية	
Module Aims أهداف المادة الدراسية	1. Students can understand how user can verify his identity (user, device, system) to access internet by using authentication and access control techniques. 2. Also, this module help students to know about the most important protocols and models for this module. 3. The students can understand the challenges and problems of this module. 4. Also the students study the multilevel security techniques .
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	1. An ability to communicate effectively with a range of audiences 2. An ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics. 3. An ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives. 4. An ability to acquire and apply new knowledge as needed, using appropriate learning strategies.
Indicative Contents المحتويات الإرشادية	1.
Learning and Teaching Strategies استراتيجيات التعلم والتعليم	
Strategies	Methodological books, resources (internet and library), dialogues reinforced with illustrative examples,Theoretical lectures, laboratory laboratories, practical tasks, using modern devices to present practical ideas to students (data show, electronic board)

Student Workload (SWL) الحمل الدراسي للطالب			
Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	64	**Structured SWL (h/w)** الحمل الدراسي المنتظم للطالب أسبوعيا	2
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	36	**Unstructured SWL (h/w)** الحمل الدراسي غير المنتظم للطالب أسبوعيا	
Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل	100		

Module Evaluation

تقييم المادة الدراسية					
		Time/Number	**Weight (Marks)**	**Week Due**	**Relevant Learning Outcome**
Formative assessment	**Quizzes**	1	10% (10)	5	LO # 1 and 3
	Practical Seminar(Lab).	2	15% (15)	Continuous	LO # 2 , 4 and 5
Summative assessment	**Midterm Exam**	1 hr	15% (15)	14	LO # 1 to 5
	Final Exam	3hr	60% (60)	16	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus) المنهاج الاسبوعي النظري	
	Material Covered
Week 1	Define the Authentication, Authentication goals, Authentication requirements, methods, Security token, Passphrase, Keystroke logging, Challenge–response authentication, Software token
Week 2	Authentication factors and types, Human Authentication
Week 3	Message encryption, Authentication technologies
Week 4	Digital Signature, Remote User Authentication Principles
Week 5	Remote User Authentication Using Symmetric Encryption
Week 6	Machine authentication, Define Access control, Access control required tools, Identification, Authentication, Authorization Fingerprints , Retina scan, Iris scan, Voice print , Facial scan process, Biometric performance,
Week 7	X.509 protocol,Certificates, Remote User Authentication ,Kerberos protocol ,Kerberos protocol, Web Traffic Security Approaches, Trans port Layer Security (TLS) and Secure Sockets Layer (SSL) ,
Week 8	Access control, why is access control important? How access control works? Access Control and Access Control Models.
Week 9	Challenges of access control,
Week 10	Access control software ,Access Control Matrix,
Week 11	ACLs and Capabilities
Week 12	Confused Deputy , Multilevel Security Models
Week 13	Bell-LaPadula , Biba's Model
Week 14	Covert Channel, Inference Control
Week 15	CAPTCHA
Week 16	Final Exam

Delivery Plan (Weekly Lab. Syllabus)
المنهاج الاسبوعي للمختبر

Week	
Week 1	
Week 2	
Week 3	
Week 4	
Week 5	
Week 6	
Week 7	
Week 8	
Week 9	
Week 10	
Week 11	
Week 12	
Week 13	

Learning and Teaching Resources مصادر التعلم والتدريس		
	Text	**Available in the Library?**
Required Texts	• Cryptography and Network Security Principles and Practice, FifthEdition,William stallings. • Https://www.chipsystems.in/download_syllabus.php?sbs= QURBQIQucGRm • INFORMATION SECURITY PRINCIPLES AND PRACTICE, Mark Stamp, San Jose State University,2006	
Recommended Texts	Daily and weekly tests, seminars discussed through lectures ,Mid exam test, Final exam	
Websites	https://ocw.cs.pub.ro/courses/_media/isc/lectures/isc_04_acl.pdf	

APPENDIX:

GRADING SCHEME مخطط الدرجات				
Group	**Grade**	التقدير	**Marks (%)**	**Definition**
Success Group	**A -** Excellent	امتياز	90 - 100	Outstanding Performance

(50 - 100)	**B** - Very Good	جيد جدا	80 - 89	Above average with some errors
	C - Good	جيد	70 - 79	Sound work with notable errors
	D - Satisfactory	متوسط	60 - 69	Fair but with major shortcomings
	E - Sufficient	مقبول	50 - 59	Work meets minimum criteria
Fail Group (0 – 49)	**FX** – Fail	مقبول بقرار	(45-49)	More work required but credit awarded
	F – Fail	راسب	(0-44)	Considerable amount of work required

Note:

NB Decimal places above or below 0.5 will be rounded to the higher or lower full mark (for example a mark of 54.5 will be rounded to 55, whereas a mark of 54.4 will be rounded to 54. The University has a policy NOT to condone "near-pass fails" so the only adjustment to marks awarded by the original marker(s) will be the automatic rounding outlined above.