	Ministry of Higher Education and Scientific Research - Iraq Al-Nahrain University College of Science Computer Science Department	

MODULE DESCRIPTION FORM
نموذج وصف المادة الدراسية

Module Information معلومات المادة الدراسية					
Module Title	Computer Network			**Module Delivery**	
Module Type	Compulsory			☒ **Theory** ☒ **Lecture** ☒ **Lab** ☐ **Tutorial** ☐ **Practical** ☐ **Seminar**	
Module Code	COMP3207				
ECTS Credits					
SWL (hr/sem)					
Module Level		3	**Semester of Delivery**		1
Administering Department		Computer Science	**College**	Science	
Module Leader	Dr. Jamal Mohammed Kadhim		**e-mail**	Jamal.mohammed@nahrainuniv.edu.iq	
Module Leader's Acad. Title			**Module Leader's Qualification**		
Module Tutor	Dr. Rasool Hisham, Zahraa A. Ja'az, Ruaa A. Jaber		**e-mail**		
Peer Reviewer Name			**e-mail**		
Scientific Committee Approval Date			**Version Number**	1.0	

Relation with other Modules العلاقة مع المواد الدراسية الأخرى			
Prerequisite module	None	**Semester**	
Co-requisites module	None	**Semester**	

Module Aims, Learning Outcomes and Indicative Contents أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية	
Module Aims أهداف المادة الدراسية	• Understanding Computer networks. • Understanding 7-model layers. • Understanding protocols of each layer and packet journey from source to destination. • Understanding host addressing through IPv4.0 and IPv6.0.
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	• Explain fundamental networking concepts, including network types, topologies, and architectures. • Describe and apply the OSI and TCP/IP models and their associated protocols. • Configure and analyze IP addressing, subnetting, and basic routing mechanisms. • Differentiate between wired and wireless networking technologies and their use cases. • Implement basic network services such as DNS, DHCP, and HTTP in a small-scale network.
Indicative Contents المحتويات الإرشادية	Networking models, data communication, IP addressing, routing, transport and application protocols, wireless networking, network security, and basic troubleshooting.

Learning and Teaching Strategies استراتيجيات التعلم والتعليم	
Strategies	• Weekly lectures, PowerPoint slides, group discussion and weekly tasks • Following the teaching strategies in the class, providing digital material, and students engagement during the lecture.

Student Workload (SWL) الحمل الدراسي للطالب محسوب لـ ١٥ اسبوعا			
Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	33	**Structured SWL (h/w)** الحمل الدراسي المنتظم للطالب أسبوعيا	2.2
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	42	**Unstructured SWL (h/w)** الحمل الدراسي غير المنتظم للطالب أسبوعيا	2.8
Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل	75		

Module Evaluation

تقييم المادة الدراسية

		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	Quizzes	2	10% (10)	7, 14	All
	Assignments	1	10% (10)	15	All
	Projects / Lab.	1	10% (10)	Continuous	All
	Report	1	10% (10)	13	All
Summative assessment	Midterm Exam	2 hr	10% (10)	10	All
	Final Exam	4 hr	50% (50)		All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus)

المنهاج الاسبوعي النظري

	Material Covered
Week 1	Introduction to computer Networking.
Week 2	Application Layer.
Week 3	Application Layer.
Week 4	Transport Layer.
Week 5	Transport Layer.
Week 6	Client-server and wireshark program
Week 7	Mid Exam #1
Week 8	Network Layer
Week 9	Network Layer
Week 10	Data Link Layer
Week 11	Data Link Layer
Week 12	Mid Exam #2
Week 13	Physical layer
Week 14	Physical layer
Week 15	Networking tools

Delivery Plan (Weekly Lab. Syllabus) المنهاج الاسبوعي للمختبر	
	Material Covered
Week 1	Introduction to Networking Configuration and Tools
Week 2	Packet Capture and Protocol Analysis with Wireshark
Week 3	Socket Programming Basics — Building a Simple Client–Server
Week 4	Exploring the HTTP Protocol
Week 5	HTTP Caching, Cookies and DNS
Week 6	**Midterm Exam #1**
Week 7	Transport Layer – TCP Reliability, Flow Control, and Congestion Control
Week 8	The Network Layer – IP, ICMP & Traceroute (Exploring How Data Moves Across Networks)
Week 9	Subnetting, IP Addressing & Router Simulation with Packet Tracer
Week 10	
Week 11	**Midterm Exam #2**
Week 12	
Week 13	
Week 14	
Week 15	

Learning and Teaching Resources مصادر التعلم والتدريس		
	Text	**Available in the Library?**
Required Texts	Computer networking : a top-down approach / James F. Kurose, Keith W. Ross.—7th ed.	Yes
Recommended Texts		
Websites		

Grading Scheme مخطط الدرجات				
Group	**Grade**	التقدير	**Marks (%)**	**Definition**
Success Group (50 - 100)	**A** - Excellent	امتياز	90 - 100	Outstanding Performance
	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	راسب (قيد المعالجة)	(45-49)	More work required but credit awarded
	F – Fail	راسب	(0-44)	Considerable amount of work required

Note: Marks 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.