Ministry of Higher Education and
Scientific Research - Iraq
University of Tikrit
College of Petroleum Process Engineering
Department of Petroleum and Gas Refining
Engineering

MODULE DESCRIPTOR FORM
نموذج وصف المادة الدراسية

Module Information			
معلومات المادة الدراسية			

Module Title	Computer Science	Module Delivery	
Module Type	Basic	☒ Theory ☐ Lecture ☒ Lab ☐ Tutorial ☐ Practical ☐ Seminar	
Module Code	PGR114		
ECTS Credits	3		
SWL (hr/sem)	100		

Module Level		UGI	Semester of Delivery		1
Administering Department		PGR	College	PPE	
Module Leader	-		e-mail	-	
Module Leader's Acad. Title	-		Module Leader's Qualification		-
Module Tutor	-		e-mail	-	
Peer Reviewer Name		-	e-mail	-	
Review Committee Approval			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	The aim of this course is to provide students with a comprehensive understanding of the key concepts and principles of computer science through the study of information technology, history of computers, hardware, software, data communication, operating system, Microsoft office, internet, e-mail, and cybersecurity.
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	1. Knowledge of the development of computer science and its impact on society. 2. Understand the information technology. 3. Identify the computer hardware. 4. Identify the computer software. 5. Ability to deal with operating system (windows) 6. Ability to deal with computer software (Microsoft office) 7. Ability to deal with internet, network and E-mail. 8. Identify and analyze various cybersecurity threats and methods of prevention.
Indicative Contents المحتويات الإرشادية	Indicative content includes the following: 1. Basic concepts of information technology, hardware, memory, storage, computer performance, software, data communication, computer networks, licensing, software types [4 hrs]. 2. Operating system: Windows (starting, elements, drives, directory, files, editing, formatting, and control panel), Linux, and Mac (general background) [4 hrs]. 3. Microsoft Word: Starting, elements, page setup, typing, editing, formatting, drawing, inserting, printing, and deals with tables [4 hrs]. 4. Microsoft Excel: Starting, elements, workbook, worksheet, cells, columns, rows, typing, editing, formatting, operators, formula, mathematical function, engineering functions, statistical functions, conditions and looping functions, chart, functions plotting, arrays, optimization (solver, goal seek), roots finding, solve of linear and non-linear set of equations [8 hrs]. 5. Microsoft PowerPoint: Starting, elements, slides, editing, formatting, animation, transition, and timing [4 hrs]. 6. Microsoft Visio: Introduction, drawings, flowcharts, data graphics,

	Microsoft SharePoint: Uses, interface [4 hrs].
	7. The internet and communications: Basic concepts, explorer, search engines, searching, e-mail, Microsoft outlook, Dropbox, Microsoft one drive, google drive [4 hrs].
	8. Cybersecurity: Threats, attacks, prevention, detection, mitigation [4 hrs]

Learning and Teaching Strategies
استراتيجيات التعلم والتعليم

Strategies	The students will be actively engaged in the tasks, which will help them develop and hone their critical thinking abilities. This will be accomplished via lectures, labs, and assignments incorporating fascinating tasks. The course includes: 1- Numerous examples worked out in detail to illustrate the basic principles. 2- Figures, sketches, and diagrams to provide a detailed description and reinforcement of what you read. 3- Self-Assessment Tests at the end of each section, with answers so that you can evaluate your progress in learning.

Student Workload (SWL)
الحمل الدراسي للطالب

Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	45	Structured SWL (h/w) الحمل الدراسي المنتظم للطالب أسبوعيا	3
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	30	Unstructured SWL (h/w) الحمل الدراسي غير المنتظم للطالب أسبوعيا	2
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	20% (20)	3, 11	LO #1-5, and 6
	Assignments	-	-	-	-
	Laboratory	4	10% (10)	Continuous	
	Report	2	10% (10)	3, 14	LO #1, 2, and 7
Summative assessment	**Midterm Exam**	3 hr	10% (10)	7	LO #1-6
	Final Exam	3 hr	50% (50)	16	All
Total assessment			100% (100 Marks)		

<table>
<tr><td colspan="2" align="center">Delivery Plan (Weekly Syllabus)
المنهاج الاسبوعي النظري والعملي</td></tr>
<tr><td></td><td>Material Covered</td></tr>
<tr><td>Week 1</td><td>Basic concepts of information technology, hardware.</td></tr>
<tr><td>Week 2</td><td>Software, data communication, computer networks, Licensing.</td></tr>
<tr><td>Week 3</td><td>Operating System (Windows, Linux, Mac).</td></tr>
<tr><td>Week 4</td><td>Microsoft Word</td></tr>
<tr><td>Week 5</td><td>Microsoft Word</td></tr>
<tr><td>Week 6</td><td>Microsoft Word</td></tr>
<tr><td>Week 7</td><td>Microsoft Excel</td></tr>
<tr><td>Week 8</td><td>Microsoft Excel</td></tr>
<tr><td>Week 9</td><td>Microsoft Excel</td></tr>
<tr><td>Week 10</td><td>Microsoft PowerPoint</td></tr>
<tr><td>Week 11</td><td>Microsoft PowerPoint</td></tr>
<tr><td>Week 12</td><td>The internet and communications</td></tr>
<tr><td>Week 13</td><td>The internet and communications</td></tr>
<tr><td>Week 14</td><td>Cybersecurity</td></tr>
<tr><td>Week 15</td><td>Preparatory Week</td></tr>
<tr><td>Week 16</td><td>Final Exam</td></tr>
</table>

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<tr><td colspan="3" align="center">Learning and Teaching Resources
مصادر التعلم والتدريس</td></tr>
<tr><td></td><td align="center">Text</td><td align="center">Available in the Library?</td></tr>
<tr><td>Required Texts</td><td>Computer and software, D. Mohammed Bilal Zoubi, D. Ahmed Acharayah, D. Munib Qteishat.</td><td align="center">Yes</td></tr>
<tr><td>Recommended Texts</td><td>Computer Science Illuminated, Nell Dale and John Lewis, 7th Ed., 2020.</td><td align="center">No</td></tr>
<tr><td>Websites</td><td align="center" colspan="2">-</td></tr>
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APPENDIX:

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	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.