

	Ministry of Higher Education and Scientific Research - Iraq Al-Mustaql University College of Engineering Department of Prosthetics and Orthotics Engineering	
---	--	---

## MODULE DESCRIPTOR FORM

## نموذج وصف المادة الدراسية

<b>Module Information</b> معلومات المادة الدراسية			
<b>Module Title</b>	علم الحاسوب I		<b>Module Delivery</b>
<b>Module Type</b>	SUPPORTIVE		<input checked="" type="checkbox"/> Theory <input type="checkbox"/> Lecture <input checked="" type="checkbox"/> Lab <input type="checkbox"/> Tutorial <input type="checkbox"/> Practical <input type="checkbox"/> Seminar
<b>Module Code</b>			
<b>ECTS Credits</b>	3		
<b>SWL (hr/sem)</b>	75		
<b>Module Level</b>	1	<b>Semester of Delivery</b>	1
<b>Administering Department</b>		<b>College</b>	
<b>Module Leader</b>	Hamzah Waleed Hamzah		<b>e-mail</b> hamzah.waleed.hamzah@uomus.edu.iq
<b>Module Leader's Acad. Title</b>	Asst. Lect.	<b>Module Leader's Qualification</b>	MCs.
<b>Module Tutor</b>			
<b>Peer Reviewer Name</b>		<b>e-mail</b>	
<b>Review Committee Approval</b>		<b>Version Number</b>	1.0

<h3 style="text-align: center;">Relation With Other Modules</h3> <p style="text-align: center;">العلاقة مع المواد الدراسية الأخرى</p>			
<b>Prerequisite module</b>	None	<b>Semester</b>	
<b>Co-requisites module</b>	None	<b>Semester</b>	
<h3 style="text-align: center;">Module Aims, Learning Outcomes and Indicative Contents</h3> <p style="text-align: center;">أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية</p>			
<b>Module Aims</b> أهداف المادة الدراسية	<ol style="list-style-type: none"> <li>1. To gain the necessary understanding of the basics of computing and information technology required in personal and professional life.</li> <li>2. To develop the necessary skills to solve problems using computers</li> <li>3. To understand the computer hardware and software</li> <li>4. To gain an understanding of the basic computer components</li> <li>5. To understand the basics of networks and the internet.</li> </ol>		
<b>Module Learning Outcomes</b> مخرجات التعلم للمادة الدراسية	<ol style="list-style-type: none"> <li>1. To recognize the basic computer components and how they work together.</li> <li>2. To recognize various input and output devices in a computer.</li> <li>3. To understand different storage types in the computer.</li> <li>4. To recognize various application software</li> <li>5. To understand the role of the operating system in the computer.</li> <li>6. To be able to use the internet for web browsing, email, etc.</li> <li>7. To be able to use the Windows operating system for everyday needs.</li> <li>8. To be able to use word processing and spreadsheet software.</li> </ol> <p>To understand cloud based software such as Google Sheets, Docs, and Gmail</p>		
<b>Indicative Contents</b> المحتويات الإرشادية	<p><b>Introduction to Computers [1hrs]:</b>  In this lecture we talk about the definition of the computer, data, and information, the components of a computer and the advantages and disadvantages of using computers.</p> <p><b>The Components of the System Unit [2hrs]:</b>  In this lecture we introduce the system unit. We introduce the microchip. We describe the control unit and arithmetic and logic unit parts of the processor and explain the four machine cycles. Define bit and byte. and describe the various types of memory, RAM, and cache.</p> <p><b>Storage [2hrs]:</b>  In this lecture we introduce storage medium and devices such as hard disks, flash memories, Solid State Disks. We also introduce cloud storage.</p>		

	<p><b>Input and Output [2hrs]:</b> In this lecture we describe various input and output devices in a computer system.</p> <p><b>The Motherboard The ports and cables [1hr]:</b> In this lecture we introduce the motherboard function, the ports of the computer and various cables used to connect to the computer.</p> <p><b>Operating System and Utility Programs [2hrs]:</b> In this lecture we describe various operating system functions. We also introduce utility programs.</p> <p><b>Application Software [2hrs]:</b> In this lecture, we identify the categories of application software, and describe the characteristics of the user interface. We also identify the key features of some business programs. Finally, we discuss web applications.</p> <p><b>Networks [1hrs]:</b> In this lecture we discuss the components of a communication system, we differentiate among types of networks: LANs, MANs, WANs, network architectures and network topologies.</p> <p><b>The Internet and the World Wide Web [2hrs]:</b> In this lecture, we introduce the various concepts related to the Internet and the world wide web. We will describe various broadband Internet connections. We will also explain the purpose of the web browser and how to use a search provider. Finally, we describe the website types and introduce e-mail.</p>
--	--

<b>Learning and Teaching Strategies</b> استراتيجيات التعلم والتعليم	
<b>Strategies</b>	The main strategy that will be adopted in delivering this module is to encourage students' participation in the exercises, while at the same time refining and expanding their critical thinking skills. This will be achieved through classes, interactive tutorials and by considering type of simple experiments involving some sampling activities that are interesting to the students. The labs are essential to teach the students how to use the Windows operating system, applications such as word and excel, and web based applications such as Google Sheets and Docs.

<h3 style="text-align: center;">Student Workload (SWL)</h3> <h4 style="text-align: center;">الحمل الدراسي للطالب</h4>			
<b>Structured SWL (h/sem)</b> الحمل الدراسي المنتظم للطالب خلال الفصل	48	<b>Structured SWL (h/w)</b> الحمل الدراسي المنتظم للطالب أسبوعيا	3
<b>Unstructured SWL (h/sem)</b> الحمل الدراسي غير المنتظم للطالب خلال الفصل	27	<b>Unstructured SWL (h/w)</b> الحمل الدراسي غير المنتظم للطالب أسبوعيا	1
<b>Total SWL (h/sem)</b> الحمل الدراسي الكلي للطالب خلال الفصل	75		

<h3 style="text-align: center;">Module Evaluation</h3> <h4 style="text-align: center;">تقييم المادة الدراسية</h4>					
		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
<b>Formative assessment</b>	<b>Quizzes</b>	2	10% (5)	3, 10	All
	<b>Assignments</b>	2	10% (5)	Continuous	All
	<b>Projects / Lab.</b>	10	20% (10)	Continuous	All
	<b>Report</b>	0	0% (0)	-	-
<b>Summative assessment</b>	<b>Midterm Exam</b>	2hrs	60% (30)	5,12	All
	<b>Final Exam</b>	3hrs	50% (50)	16	All
<b>Total assessment</b>		100% (100 Marks)			

<h3 style="text-align: center;">Delivery Plan (Weekly Syllabus)</h3> <h4 style="text-align: center;">المنهاج الاسبوعي النظري</h4>	
	Material Covered
<b>Week 1</b>	Introduction to Computers
<b>Week 2</b>	The Components of the System Unit – The microchips
<b>Week 3</b>	The Components of the System Unit – The processor
<b>Week 4</b>	The Components of the System Unit – The memory and the buses
<b>Week 5</b>	Storage devices – Hard disk
<b>Week 6</b>	Storage devices – Flash memory and cloud storage
<b>Week 7</b>	Input and Output – Keyboard, mouse, and touch input
<b>Week 8</b>	Input and Output – Display (LCD, OLED), printers
<b>Week 9</b>	The Motherboard
<b>Week 10</b>	The ports and cables

<b>Week 11</b>	The Operating System
<b>Week 12</b>	The Utility Programs
<b>Week 13</b>	The Application Software
<b>Week 14</b>	Networks (LAN, MAN, WAN)
<b>Week 15</b>	The Internet and the World Wide Web

<b>Delivery Plan (Weekly Lab. Syllabus)</b> المنهاج الأسبوعي للمختبر	
	<b>Material Covered</b>
<b>Week 1</b>	Computer Hardware
<b>Week 2</b>	Using web browsers and email (Gmail)
<b>Week 3</b>	Windows operating system
<b>Week 4</b>	
<b>Week 5</b>	
<b>Week 6</b>	Google Sheets and Docs tutorial
<b>Week 7</b>	
<b>Week 8</b>	Microsoft Word and Excel tutorial
<b>Week 9</b>	
<b>Week 10</b>	
<b>Week 11</b>	Microsoft PowerPoint tutorial
<b>Week 12</b>	
<b>Week 13</b>	How to write an academic report using Microsoft Word
<b>Week 14</b>	
<b>Week 15</b>	Summary and Exercises

## Learning and Teaching Resources

مصادر التعلم والتدریس

	Text	Available in the Library?
<b>Required Texts</b>	<ul style="list-style-type: none"> <li>➤ How Computers Work (Ron White)</li> </ul> <p>Discovering Computers Fundamentals, Your Interactive Guide to the Digital World (Gary B. Shelly, Misty E. Vermaat)</p>	No
<b>Recommended Texts</b>	<ul style="list-style-type: none"> <li>➤ Information Technology, An Introduction for Today's Digital World.</li> </ul> <p>Complete A+ Guide to IT Hardware and Software</p>	No
<b>Websites</b>		

## APPENDIX:

<b>GRADING SCHEME</b> <b>مخطط الدرجات</b>				
<b>Group</b>	<b>Grade</b>	التقدير	<b>Marks (%)</b>	<b>Definition</b>
<b>Success Group (50 - 100)</b>	<b>A - Excellent</b>	امتياز	90 – 100	Outstanding Performance
	<b>B - Very Good</b>	جيد جدا	80 – 89	Above average with some errors
	<b>C - Good</b>	جيد	70 – 79	Sound work with notable errors
	<b>D - Satisfactory</b>	متوسط	60 – 69	Fair but with major shortcomings
	<b>E - Sufficient</b>	مقبول	50 – 59	Work meets minimum criteria
<b>Fail Group (0 – 49)</b>	<b>FX – Fail</b>	مقبول بقرار	(45-49)	More work required but credit awarded
	<b>F – Fail</b>	راسب	(0-44)	Considerable amount of work required
<b>Note:</b>				
<p>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.</p>				



ملاحظة: هذا النموذج تم وضعه وتقديمه من قبل مديرية ضمان الجودة في وزارة التعليم العالي والبحث العلمي