

MODULE DESCRIPTION FORM

نموذج وصف المادة الدراسية

Module Information			
معلومات المادة الدراسية			
Module Title	Fundamental of Computer Science		Module Delivery
Module Type	Basic		<input type="checkbox"/> Theory <input checked="" type="checkbox"/> Lecture <input checked="" type="checkbox"/> Lab <input type="checkbox"/> Tutorial <input type="checkbox"/> Practical <input type="checkbox"/> Seminar
Module Code	KUS 1102		
ECTS Credits	3		
SWL (hr/sem)	75		
Module Level	1	Semester of Delivery	
Administering Department	MBo	College	SC
Module Leader	Dr. Nora Hikmat Mutasher	e-mail	dr.nora.hikmat@kus.edu.iq
Module Leader's Acad. Title	Lecturer	Module Leader's Qualification	Ph.D.
Module Tutor	Lecturer Eng. Ahmed Sobri	e-mail	eng.ahmed.sabri@kus.edu.iq
Peer Reviewer Name	Dr. Saad Hussein	e-mail	saad_2019@ku.edu.iq
Scientific Committee Approval Date	17/06/2023	Version Number	ق.أ.م/ ٥٠٨

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

<p>Module Aims أهداف المادة الدراسية</p>	<p>The computer course includes in the theoretical side the basics of computers, as well as a brief historical summary on the development and generations of computers also Computer Types. A detailed explanation of the Computer Components (Hardware and Software); addition to the student's definition of Numbers Systems (Decimal & Binary); the last axis comes about introducing the student to the Internet and the Intranet. As for the practical side, the student is taught the ready-made basic programs that include Microsoft Office and the Windows operating system, as the course includes practical hours, so the most important output is the student's mastery in dealing with the calculator as an easy tool to work with.</p>
<p>Module Learning Outcomes مخرجات التعلم للمادة الدراسية</p>	<p>The learning outcomes of studying medical image analysis include:</p> <ol style="list-style-type: none">1. Defining computer components (hardware and software) to the students.2. Explaining input and output devices to the students.3. Enabling students to recognize different types of memory.4. Teaching students about number systems and how to convert between decimal and binary.5. Defining the Internet and Intranet to students and discussing the similarities and differences between the two.6. Providing hands-on experience with basic programs, including Microsoft Office and the Windows operating system, to students.
<p>Indicative Contents المحتويات الإرشادية</p>	<p>Indicative content includes the following.</p> <p><u>Part A</u></p> <p>Introduction to Computer, Definition of Computer, Computer History, Generations of Computers, Categories of Computer. [4 hrs]</p> <p><u>Part B</u></p> <p>Computer Components, Software. [4 hrs]</p> <p><u>Part C</u></p> <p>Computer Components, Hardware, Input Devices, Output Devices, Components of</p>

	<p>the System Unit, Central Processing Unit (CPU), Memory. [4 hrs]</p> <p><u>Part D</u></p> <p>Hardware, Cache Memory, Primary, Memory (Main Memory) ,Random Access Memory, Read Only Memory, Secondary Memory, Memory Units, Storage Devices. [8 hrs]</p> <p><u>Part E</u></p> <p>Numbers Systems, Decimal Number System, Binary Number System, Convert Decimal to Binary System, Examples, Convert Binary to Decimal System, Examples. . [6 hrs]</p> <p><u>Part F</u></p> <p>Defining Internet and Intranet, Types of Computer Network, Computer network. [4 hrs]</p>
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<h3 style="text-align: center;">Learning and Teaching Strategies</h3> <p style="text-align: center;">استراتيجيات التعلم والتعليم</p>	
Strategies	<p>In order to enable students to learn computer skills effectively, here are some strategies that can be employed:</p> <ol style="list-style-type: none"> 1. Provide hands-on activities: Incorporate hands-on activities, projects, and exercises to engage students actively in the learning process. Practical application of concepts helps students understand how computers work and reinforces their understanding. 2. By using visual aids and interactive resources: Utilize visual aids, diagrams, charts, and interactive resources like educational software, simulations, and coding platforms to make abstract concepts more tangible and engaging. 3. Foster a collaborative learning environment: Encourage students to work in teams or pairs on projects or coding exercises. Collaborative learning allows students to share ideas, help one another, and learn from different perspectives. 4. Personalize the learning experience: Recognize that students have different learning styles and paces. Provide opportunities for individualized learning, allowing students to progress at their own speed and explore topics of interest to them. Tailor the learning experience to accommodate diverse learning needs. 5. Encourage exploration and experimentation: Encourage students to explore and experiment with different programming languages, tools, and technologies. Let them pursue their own coding projects and interests. This

	<p>fosters curiosity and self-directed learning.</p> <p>6. Connect with real-world applications: Demonstrate how computer skills are applied in various fields and industries. Show examples of how coding is used in creating websites, mobile apps, robotics, or data analysis. Connecting computer skills to real-world applications can motivate students and help them understand the practical significance of what they are learning.</p> <p>7. Through updated with technology trends: Stay abreast of the latest technology trends, tools, and programming languages. Integrate relevant and up-to-date content into the curriculum to ensure students are learning skills that are in demand in the job market.</p> <p>It is important to create a supportive and inclusive learning environment where students feel encouraged to ask questions, take risks, and explore their interests. By implementing these strategies, we can help students develop a solid foundation in computer skills and foster their passion for technology.</p>
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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 أسبوعياً	3
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	30	Unstructured SWL (h/w) الحمل الدراسي غير المنتظم للطالب أسبوعياً	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	5% (5)	4, 8	LO # 1,2,3,5,6, and 7
	Assignments	2	10% (10)	10, 14	LO # 8, 9, 11,12 and 13
	Projects / Lab.	1	20% (20)	Continuous	
	Report	1	5% (5)	15	LO # 4,14
Summative assessment	Midterm Exam	2hr	10% (10)	9	LO # 1-8
	Final Exam	2hr	50% (50)	15	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus)

المنهاج الاسبوعي النظري

	Material Covered
Week 1	Introduction to Computer, Definition of Computer
Week 2	Computer History, Generations of Computers,
Week 3	Categories of Computer.
Week 4	Computer Components, Software
Week 5	Computer Components, Hardware, Input Devices
Week 6	Computer Components, Hardware, Output Devices
Week 7	Computer Components, Hardware, Components of the System Unit, Central Processing Unit (CPU), Memory
Week 8	Hardware, Cache Memory, Primary, Memory (Main Memory)
Week 9	Hardware, Random Access Memory, Read Only Memory
Week 10	Hardware, Secondary Memory, Memory Units, Storage Devices
Week 11	Numbers Systems, Decimal Number System, Binary Number System
Week 12	Numbers Systems, Convert Decimal to Binary System, Examples
Week 13	Numbers Systems, Convert Binary to Decimal System, Examples
Week 14	Defining Internet and Intranet, Types of Computer Network, Computer network
Week 15	Final Exam

Delivery Plan (Weekly Lab. Syllabus)

المنهاج الاسبوعي للمختبر

	Material Covered
Week 1	Lab 1: Windows 10: An introduction to windows 10, The start menu, Notification pane and action center.
Week 2	Lab 2: Cortana, Microsoft edge, Use multiple desktops, Tablet mode, The settings App.
Week 3	Lab 3: Microsoft word 2016: An introduction to Microsoft Word 2016, Starting Word, The Home Ribbon: Using Paragraph Styles, Bold, Italic & Underlined, Superscript & Subscript, Highlighting Text, Text Colour, Text Justification, Paragraph Indents, Bullet Lists, Numbered Lists, Cut, Copy & Paste.
Week 4	Lab 4: The Insert Ribbon: Inserting Symbols, Equations, Cover Pages, Adding Images, Adding Effects to Images, Cropping Images, Wrap Text around Images, Adding Tables, Formatting Tables, Add a Column, Insert a Row, Resizing Rows & Columns, Headers and Footers, Inserting Headers & Footers, Editing Headers & Footers.
Week 5	Lab 5: Page Numbering: The Design Ribbon (Page Borders, Page Color, Watermarks, Page

	Numbering: The Page Layout Ribbon, Page Setup, The References Ribbon, The Mailings Ribbon, The Format Ribbon, File Backstage, Saving Documents, Saving as a Different Format, Opening Saved Documents, Printing Documents.
Week 6	Lab 6: Microsoft Excel 2016: An introduction to Microsoft Excel 2016, Starting Excel, The Home Ribbon, The Insert Ribbon, The Page Layout Ribbon, The Formulas Ribbon, The Data Ribbon, The Review Ribbon, The View Ribbon, File Backstage, Introduction to a Spreadsheet, Entering Data.
Week 7	Lab 7: Simple Text Formatting, Text Orientation, Resizing Rows and Columns, inserting Rows & Columns, Cut, Copy & Paste, Sorting Data, Formatting Spreadsheet, Cell Alignment, Text Format, Cell Borders, Using Formulas, Using Functions, Count, Count IF, Auto Sum, Average, Max & Min, IF Function, Adding Charts, Change Chart Type.

Learning and Teaching Resources		
مصادر التعلم والتدريس		
	Text	Available in the Library?
Required Texts	1- Ata Elahi, "Computer Systems, Digital Design, Fundamentals of Computer, Architecture and Assembly Language", Springer International Publishing AG 2018. 2- Peter Norton "Introduction to Computers", sixth Edition, 2008, ISBN-13:978-0-07-059374-9. 3- B. Hemanta, Computer Fundamental, Stratford College London, pp.1-20. 4- R Mansfield, "Mastering VBA for Microsoft Office", 2019, 944 Pages.	Yes
Recommended Texts	1- Steven Freund, Gary B. Shelly, Thomas J. Cashman, Misty Vermaat, Introduction to Computers, Eighth Edition, 2012, ISBN10 143908131X, ISBN13 9781439081310	No
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.