MODULE DESCRIPTION FORM

نموذج وصف المادة الدراسية

Module Information				
معلومات المادة الدراسية				
Module Title	**Visual Programming**		**Module Delivery**	
Module Type	Core		☒Theory ☒Lecture ☒Lab ☐Tutorial ☐Practical ☐Seminar	
Module Code	COM-225			
ECTS Credits	4.00			
SWL (hr/sem)	100			
Module Level	2	**Semester of Delivery**		4
Administering Department		**College**	Type College Code	
Module Leader	Muneer Maaroof Hassan	**e-mail**	Muneer_maaroof@uodiyala.edu.iq	
Module Leader's Acad. Title	Asso. Prof.	**Module Leader's Qualification**		Msc.
Module Tutor	Name (if available)	**e-mail**	E-mail	
Peer Reviewer Name	Name	**e-mail**	E-mail	
Scientific Committee Approval Date	01/06/2023	**Version Number**	1.0	

Relation with other Modules			
العلاقة مع المواد الدراسية الأخرى			
Prerequisite module	COM-211	**Semester**	3
Co-requisites module	None	**Semester**	

Module Aims, Learning Outcomes and Indicative Contents	
أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية	
Module Objectives أهداف المادة الدراسية	1. This course will provide a managerial perspective of information systems and what role they play in an organization. Student learn about the modern technologies and how organizations can use these technologies for their growth.
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	CLO-1: Knowledge (C1) * Use the different elements of a visual programming language as building blocks to develop correct, coherent programs. CLO-2: Application (C3) * Program using the fundamental software development process, including design, coding, documentation, testing, and debugging. CLO-3: Analysis (C4) * Analyze problems, develop conceptual designs that solve those problems, and transform those designs to Visual Programs with VB.Net.
Indicative Contents المحتويات الإرشادية	This course introduces computer programming using the Visual Programming language with object-oriented programming principles. Emphasis is on event-driven programming methods, including creating and manipulating objects, classes, and using object-oriented tools such as the class debugger. Upon completion, students should be able to design, code, test and debug at a beginning level. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement.

Learning and Teaching Strategies	
استراتيجيات التعلم والتعليم	
Strategies	s.

Student Workload (SWL)			
الحمل الدراسي للطالب محسوب لـ ١٥ اسبوعا			
Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	63	**Structured SWL (h/w)** الحمل الدراسي المنتظم للطالب أسبوعيا	4
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	37	**Unstructured SWL (h/w)** الحمل الدراسي غير المنتظم للطالب أسبوعيا	2
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**	2	10% (10)	4 and 7	LO #1, #2 and #10, #11
	Assignments	2	10% (10)	5 and 10	LO #3, #4 and #6, #7
	Projects / Lab.	1	10% (10)	Continuous	All
	Report	1	10% (10)	13	LO #5, #8 and #10
Summative assessment	**Midterm Exam**	2hr	10% (10)	7	LO #1 - #7
	Final Exam	3hr	50% (50)	16	All
Total assessment			100% (100 Marks)		

| Delivery Plan (Weekly Syllabus) | |
المنهاج الاسبوعي النظري	
Week 1	Introduction to Scratch: Overview of the interface, sprites, blocks, and creating a basic project.
Week 2	Understanding Events: Event-driven programming and triggering actions using events.
Week 3	Loops and Iteration: Repeat blocks, forever loops, and nested loops.
Week 4	Conditional Statements: If-then and if-then-else blocks for decision-making.
Week 5	Variables: Creating and using variables to store and manipulate data.
Week 6	Working with Operators: Mathematical and logical operators for dynamic behavior.
Week 7	Creating Animations: Using costumes, backdrops, and timing for animations.
Week 8	Building Simple Games: Basics of game development, scoring, and timers.
Week 9	MIDTERM EXAM
Week 10	User Interaction: Sensing blocks for keyboard and mouse inputs.
Week 11	Broadcasting and Messaging: Communication between sprites using broadcast messages.
Week 12	Project Development: Designing and implementing a complete project (e.g., game or animation).
Week 13	Debugging and Optimization: Identifying and fixing errors in Scratch projects.
Week 14	Advanced Topics: Custom blocks (functions) and cloning.
Week 15	Final Project Preparation: Developing a comprehensive Scratch project.
Week 16	FINAL EXAM

Delivery Plan (Weekly Lab. Syllabus)
المنهاج الاسبوعي للمختبر

	Lab 1: Introduction to the Scratch interface and basic project creation.
Week 1	Lab 2: Event-driven programming with Scratch.
Week 2	Lab 3: Loops and iterations in Scratch projects.
Week 3	Lab 4: Using conditional statements in interactive projects.
Week 4	Lab 5: Creating and manipulating variables in Scratch.
Week 5	Lab 6: Adding animations with costumes and backdrops.
Week 6	Lab 7: Building a simple game with scoring and timers.
Week 7	Lab 8: Debugging and optimizing Scratch projects.
Week 8	Lab8: Implement the TRY-THROW-CATCH structure for exception handling

Learning and Teaching Resources
مصادر التعلم والتدريس

	Text	**Available in the Library?**
Required Texts	Mitchel Resnick, "Scratch Programming for Beginners: An Introduction to Creative Coding", Scratch Foundation. 650154-0.	Yes
Recommended Texts	- Derek Breen, "Scratch for Kids For Dummies", 2015, ISBN: 978-1119014874	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.