MODULE DESCRIPTION FORM

نموذج وصف المادة الدراسية

Module Information معلومات المادة الدراسية					
Module Title	**Matlab**			**Module Delivery**	
Module Type	**Basic**			☐ **Theory** ☒ **Lecture** ☒ **Lab** ☐ **Tutorial** ☒ **Practical** ☐ **Seminar**	
Module Code	**UOMU0000024**				
ECTS Credits	**3**				
SWL (hr/sem)	**75**				
Module Level	4		**Semester of Delivery**	1	
Administering Department	Matlab		**College**	Science	
Module Leader	Msc.Lubna jalil		**e-mail**	Lubna.jalil@qu.edu.iq	
Module Leader's Acad. Title	Assistant Professor		**Module Leader's Qualification**	Ph.D.	
Module Tutor	Name (if available)		**e-mail**	E-mail	
Peer Reviewer Name	Name		**e-mail**	E-mail	
Scientific Committee Approval Date	015/09/2024		**Version Number**	1.0	

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

Co-requisites module	Microbial Genetics	**Second Semester**	

Module Aims, Learning Outcomes and Indicative Contents أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية	
Module Objectives أهداف المادة الدراسية	Matlab is the science of collecting, describing, and interpreting data, or in other words, it is a deep toolbox that serves scientific research. In other words, computer science is one of the disciplines of computer science, which creates data by collecting, summarizing, tabulating, and then dividing it to resolve disputes regarding the reason for the decision.
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	1- The student can count and list the things that are intended to provide computer data 2- The student can collect the necessary data to reach the goal 3- The student can study and analyze the necessary data 4- The student can make the appropriate decision for each problem
Indicative Contents المحتويات الإرشادية	Indicative content includes the following. - Description and integration of the biochemistry of nucleic acids - Genetic diversity. - Gene expression. - Basic methods used in molecular biology. - How molecular biology relates to other fields of science.

Learning and Teaching Strategies استراتيجيات التعلم والتعليم	
Strategies	Teaching and learning tools at MathWorks are designed to support individual faculty teaching with MATLAB® and Simulink® in universities, colleges, and community colleges.

	When your goal is to teach engineering and science skills using MathWorks products, our teaching and learning applications can help you achieve your objectives in any learning environment, including in-classroom, virtual, and hybrid programs.

Student Workload (SWL) الحمل الدراسي للطالب محسوب لـ ١٥ اسبوعا			
Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	94	**Structured SWL (h/w)** الحمل الدراسي المنتظم للطالب أسبوعيا	6
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	31	**Unstructured SWL (h/w)** الحمل الدراسي غير المنتظم للطالب أسبوعيا	2
Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل	125		

Module Evaluation تقييم المادة الدراسية					
		Time/Number	**Weight (Marks)**	**Week Due**	**Relevant Learning Outcome**
Formative assessment	**Quizzes**	5 min	5% (10)	4 weeks	1-10
	Assignments	2hr	10 % (10)	All weeks	1-10
	Projects / Lab.	1hr	10 % (10)	Continuous	13
	Participation	3hr	5 % (10)	Continuous	All
Summative assessment	**Monthly Exam**	1hr	10% (10)	12 weeks	13-27
	Final Exam	3hr	60% (50)	16th Week	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus) المنهاج الاسبوعي النظري	
	Material Covered
Week 1	Matlab Interactive Sessions
Week 2	Arrays 2. Multidimensional Arrays 3. Element by Element Operations
Week 3	Functions & Files
Week 4	Arit Programming Techniques
Week 5	Plotting
Week 6	حلقة نقاشية
Week 7	First Exam
Week 8	Design and implementation of handle-driven graphics
Week 9	Graphics
Week 10	Introduction to Graphical User Interfaces (GUI) using GUIDE
Week 11	Image Types
Week 12	Image Rotation and Scale
Week 13	Define Image Processing
Week 14	Convert signals from an image sensor into digital images
Week 15	Matlab Interactive Sessions

Delivery Plan (Weekly Lab. Syllabus) المنهاج الاسبوعي للمختبر

	Material Covered
Week 1	Design and implementation of handle-driven graphics
Week 2	Graphics
Week 3	Introduction to Graphical User Interfaces (GUI) using GUIDE
Week 4	Image Types
Week 5	Image Rotation and Scale
Week 6	Define Image Processing
Week 7	Convert signals from an image sensor into digital images

Learning and Teaching Resources

مصادر التعلم والتدريس

	Text	Available in the Library?
Required Texts	Cell and Molecular Biology: Copyright 2016 ;Second edition; Gerald Bergtrom	No
Recommended Texts	Book the history of the COMPUTER Tmetlab	No

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.