

# MODULE DESCRIPTION FORM

## نموذج وصف المادة الدراسية

Module Information			
معلومات المادة الدراسية			
Module Title	<b>Object oriented programming I</b>		Module Delivery
Module Type	Core		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			
ECTS Credits	8		
SWL (hr/sem)			
Module Level	2	Semester of Delivery	
Administering Department	cs	College	It
Module Leader	Name	e-mail	E-mail
Module Leader's Acad. Title		Module Leader's Qualification	
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	None	Semester	
Co-requisites module	None	Semester	

## Module Aims, Learning Outcomes and Indicative Contents

أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية

<p><b>Module Aims</b></p> <p>أهداف المادة الدراسية</p>	<p>THIS COURSE WILL PROVIDE A BASIC UNDERSTANDING OF THE METHODS AND TECHNIQUES OF DEVELOPING A SIMPLE TO MODERATELY COMPLEX WEB SITE. USING THE CURRENT STANDARD WEB PAGE LANGUAGE, STUDENTS WILL BE INSTRUCTED ON CREATING AND MAINTAINING A SIMPLE WEB SITE. AFTER THE FOUNDATION LANGUAGE HAS BEEN ESTABLISHED, THE AID OF AN WEB EDITOR WILL BE INTRODUCED. THIS COURSE WILL PROVIDE A RIGOROUS TREATMENT OF OBJECT - ORIENTED CONCEPTS (DESIGN AND IMPLEMENTATION OF OBJECTS, CLASS CONSTRUCTION AND DESTRUCTION, ENCAPSULATION, INHERITANCE, AND POLYMORPHISM) USING JAVA AS AN EXAMPLE LANGUAGE.</p>
<p><b>Module Learning Outcomes</b></p> <p>مخرجات التعلم للمادة الدراسية</p>	<p>DEVELOPMENT OF SOUND PROGRAMMING AND DESIGN SKILLS, PROBLEM SOLVING AND MODELING OF REAL-WORLD PROBLEMS FROM SCIENCE, ENGINEERING, AND ECONOMICS USING THE OBJECT-ORIENTED PARADIGM.</p>
<p><b>Indicative Contents</b></p> <p>المحتويات الإرشادية</p>	<p>Indicative content includes the following.</p> <ol style="list-style-type: none"> <li><u>1 Programming style</u></li> <li><u>2 Basic statements with looping and repetitions</u></li> <li><u>3 One dimensional Arrays</u></li> <li><u>4 Two dimensional Arrays</u></li> <li><u>5 Classes and methods</u></li> <li><u>6 Constructors, Variable types, Overloading</u></li> <li><u>7 UML diagrams</u></li> <li><u>8 Programming by contract: preconditions, postconditions and invariants</u></li> <li><u>9 Designing interfaces</u></li> <li><u>10 Polymorphism</u></li> <li><u>11 Encapsulation</u></li> <li><u>12 Inheritance</u></li> </ol>

## Learning and Teaching Strategies

استراتيجيات التعلم والتعليم

<p><b>Strategies</b></p>	<p>Type something like: 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,</p>
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interactive tutorials and by considering type of simple experiments involving some sampling activities that are interesting to the students.

### Student Workload (SWL)

الحمل الدراسي للطالب

<b>Structured SWL (h/sem)</b> الحمل الدراسي المنتظم للطالب خلال الفصل	102	<b>Structured SWL (h/w)</b> الحمل الدراسي المنتظم للطالب أسبوعياً	7
<b>Unstructured SWL (h/sem)</b> الحمل الدراسي غير المنتظم للطالب خلال الفصل	98	<b>Unstructured SWL (h/w)</b> الحمل الدراسي غير المنتظم للطالب أسبوعياً	6.5
<b>Total SWL (h/sem)</b> الحمل الدراسي الكلي للطالب خلال الفصل	200		

### Module Evaluation

تقييم المادة الدراسية

		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
<b>Formative assessment</b>	<b>Quizzes</b>	2	10% (10)	5, 10	LO #1, 2, 10 and 11
	<b>Assignments</b>	2	10% (10)	2, 12	LO # 3, 4, 6 and 7
	<b>Projects / Lab.</b>	1	10% (10)	Continuous	
	<b>Report</b>	1	10% (10)	13	LO # 5, 8 and 10
<b>Summative assessment</b>	<b>Midterm Exam</b>	2 hr	10% (10)	7	LO # 1-7
	<b>Final Exam</b>	2hr	50% (50)	16	All
<b>Total assessment</b>			100% (100 Marks)		

# MODULE DESCRIPTION FORM

## نموذج وصف المادة الدراسية

Module Information			
معلومات المادة الدراسية			
Module Title	<b>Object oriented programming II</b>		Module Delivery
Module Type	Core		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			
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<p><b>Module Learning Outcomes</b></p> <p>مخرجات التعلم للمادة الدراسية</p>	<p>Introducing advanced entity programming.</p> <ul style="list-style-type: none"> <li>➤ How to use objects within programming as a modern concept and develop students' ability to programmatically</li> <li>➤ Enhancing the student's ability to think in abstract terms when solving computer science problems and diversity in solution</li> </ul> <p>problems in different ways and how to relate them to reality</p> <ul style="list-style-type: none"> <li>➤ Addressing advanced new concepts in programming such as multithreading, graphical user interface, and others.</li> </ul>
<p><b>Indicative Contents</b></p> <p>المحتويات الإرشادية</p>	<p>Indicative content includes the following.</p> <ol style="list-style-type: none"> <li><u>1-Wrapper classes</u></li> <li><u>2-Inner classes</u></li> <li><u>3- Multithreading</u></li> <li><u>4-Generics</u></li> <li><u>5-GUI design</u></li> <li><u>6-Data base access</u></li> <li><u>7-Distribution</u></li> </ol>

## Learning and Teaching Strategies

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