



Ministry of Higher Education and  
Scientific Research - Iraq  
Al-Mustaqbal University  
College of Sciences  
Cyber Security Science Department



## MODULE DESCRIPTOR FORM

### نموذج وصف المادة الدراسية

Module Information					
معلومات المادة الدراسية					
Module Title	STRUCTURED PROGRAMMING			Module Delivery	
Module Type	CORE			-Theory Lecture -Lab -PracticalSeminar	
Module Code	UOMU03321				
ECTS Credits	8				
SWL (hr/sem)	200				
Module Level	1		Semester of Delivery	2	
Administering Department			College		
.Module Leader	Abdulkadhem A. Abdulkadhem		e-mail	<a href="mailto:A.abdulkadhem@uomus.edu.iq">A.abdulkadhem@uomus.edu.iq</a>	
Module Leader's Acad. Title	Asst Lect		Module Leader's Qualification	Ph.D.	
Module Tutor	None		e-mail	None	
Peer Reviewer Name			e-mail		
Review Committee Approval			Version Number		

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

<b>Module Aims</b> أهداف المادة الدراسية	<ol style="list-style-type: none"> <li>1. Teaching the students the concept of the array , performing many operation on them.</li> <li>2. Studying the functions and how to call then and passing values to them.</li> <li>3. Teaching students strings manipulate</li> <li>4. Teaching student the pointers and the structures in C++</li> </ol>
<b>Module Learning Outcomes</b> مخرجات التعلم للمادة الدراسية	<ol style="list-style-type: none"> <li>1. Understanding the meaning of one dimension array</li> <li>2. Understanding the meaning of two dimension array</li> <li>3. Perform operations on arrays.</li> <li>4. Understanding the concept of function and who to return values from them</li> <li>5. Learn how to pass parameters to functions</li> <li>6. Capable of using string and manipulate them in the program</li> <li>7. Give the student the ability of using pointers and structures in there programs</li> </ol>
<b>Indicative Contents</b> المحتويات الإرشادية	<ol style="list-style-type: none"> <li>1- Explain how to define one dimension and two dimension array</li> <li>2- Define functions with their various types. Explain how to use strings in the program</li> <li>3- Let the students see many examples about pointers and structures and there effects on the programs</li> </ol>
<b>Learning and Teaching Strategies</b> استراتيجيات التعلم والتعليم	
<b>Strategies</b>	<p>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.</p>

## 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 أسبوعيا	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 أسبوعيا	7
<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>	1	10% (10)	5	LO # 1 and 3
	<b>Practical Seminar(Lab).</b>	2	15% (15)	Continuous	LO # 2 , 4 and 5
<b>Summative assessment</b>	<b>Midterm Exam</b>	1 hr	15% (15)	14	LO # 1 to 5
	<b>Final Exam</b>	3hr	60% (60)	16	All
<b>Total assessment</b>			100% (100 Marks)		

## Delivery Plan (Weekly Syllabus)

المنهاج الاسبوعي النظري

	Material Covered
<b>Week 1</b>	<ul style="list-style-type: none"> <li>Functions, program in functions</li> <li>Passing parameters</li> </ul>
<b>Week 2</b>	<ul style="list-style-type: none"> <li>Arrays: one dimensional array</li> </ul>
<b>Week 3</b>	<ul style="list-style-type: none"> <li>Arrays: two dimensional array</li> </ul>
<b>Week 4</b>	<ul style="list-style-type: none"> <li>Array and functions</li> </ul>
<b>Week 5</b>	Quizzes
<b>Week 6</b>	<ul style="list-style-type: none"> <li>Strings</li> </ul>
<b>Week 7</b>	<ul style="list-style-type: none"> <li>Member function of strings</li> </ul>
<b>Week 8</b>	<ul style="list-style-type: none"> <li>Structure : Type of Structure declaration</li> </ul>
<b>Week 9</b>	<ul style="list-style-type: none"> <li>Array of Structures</li> </ul>

Week 10	<ul style="list-style-type: none"> <li>• Structure within structure</li> <li>• Functions and structures</li> </ul>
Week 11	<ul style="list-style-type: none"> <li>• pointers declaration</li> <li>• pointers and functions parameters passing</li> </ul>
Week 12	<ul style="list-style-type: none"> <li>• Pointers and arrays</li> </ul>
Week 13	<ul style="list-style-type: none"> <li>• Arrays of pointers</li> <li>• pointers to pointers</li> </ul>
Week 14	Midterm Exam
Week 15	Preparatory Week
Week 16	Final Exam

<b>Delivery Plan (Weekly Lab. Syllabus)</b> المنهاج الاسبوعي للمختبر	
	Material Covered
Week 1	<ul style="list-style-type: none"> <li>• Functions, program in functions</li> <li>• Passing parameters</li> </ul>
Week 2	<ul style="list-style-type: none"> <li>• Arrays: one dimensional array</li> </ul>
Week 3	<ul style="list-style-type: none"> <li>• Arrays: two dimensional array</li> </ul>
Week 4	<ul style="list-style-type: none"> <li>• Array and functions</li> </ul>
Week 5	Quizzes
Week 6	<ul style="list-style-type: none"> <li>• Strings</li> </ul>
Week 7	<ul style="list-style-type: none"> <li>• Member function of strings</li> </ul>
Week 8	<ul style="list-style-type: none"> <li>• Structure : Type of Structure declaration</li> </ul>
Week 9	<ul style="list-style-type: none"> <li>• Array of Structures</li> </ul>
Week 10	<ul style="list-style-type: none"> <li>• Structure within structure</li> <li>• Functions and structures</li> </ul>
Week 11	<ul style="list-style-type: none"> <li>• pointers declaration</li> <li>• pointers and functions parameters passing</li> </ul>
Week 12	<ul style="list-style-type: none"> <li>• Pointers and arrays</li> </ul>
Week 13	<ul style="list-style-type: none"> <li>• Arrays of pointers</li> <li>• pointers to pointers</li> </ul>

## Learning and Teaching Resources

مصادر التعلم والتدريس

	Text	Available in the Library?
<b>Required Texts</b>	Mastring C++, Amman-Jordan, AL-Shorok, 2002	Yes
<b>Recommended Texts</b>	1- OqeiliSalch, prof. Department of IT-AL-Balqa Applied University.	No
<b>Websites</b>		

### APPENDIX:

#### GRADING SCHEME

مخطط الدرجات

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

**Note:**

NB 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.