



Ministry of Higher Education  
and Scientific Research – Iraq  
Al-Mustaqbal University College  
College of Sciences



## MODULE DESCRIPTOR

### وصف المادة الدراسية

Module Information			
معلومات المادة الدراسية			
Module Title	PYTHON LANGUAGE		Module Delivery
Module Type	CORE		Theory Lecture Lab Tutorial Practical Seminar
Module Code	uomu0304034		
ECTS Credits	5		
SWL (hr/sem)	125		
Module Level	2	Semester of Delivery	
Administering Department	Department of Artificial Intelligence	College	College of Sciences
NModule Leader	Hadi Salah	e-mail	hadi.salah.hadi@uomus.edu.iq
Module Leader's Acad. Title	Asst. Lec	Module Leader's Qualification	M.Sc
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	None
Co-requisites module	None	Semester	None

## Module Aims, Learning Outcomes and Indicative Contents

أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية

<b>Module Aims</b> أهداف المادة الدراسية	<ul style="list-style-type: none"><li>• Getting to know the concept of Python Language</li><li>• Knowing the functions of Python Language</li><li>• Getting to know the Python Language applications</li></ul>
<b>Module Learning Outcomes</b> مخرجات التعلم للمادة الدراسية	<ol style="list-style-type: none"><li>1-Understand the basic syntax and semantics of Python programming language.</li><li>2-Implement logical rules and queries using Python.</li><li>3-Analyze and solve problems using Python programming.</li><li>4-Develop the student thinking skills and the ability to analyze problems using logical programming principles.</li><li>5- Develop skills in debugging and testing Python programs.</li><li>6-Demonstrate the ability to develop and implement Python programs to solve problems in different domains.</li></ol>
<b>Indicative Contents</b> المحتويات الإرشادية	<ol style="list-style-type: none"><li>1-BASIC PYTHON SYNTAX</li><li>2-VARIABLE TYPES</li><li>3-BASIC OPERATORS</li><li>4-DECISION MAKING</li><li>5-LOOPS</li><li>6-NUMBERS</li><li>7-STRINGS</li><li>8-LISTS</li><li>9-DICTIONARY</li><li>10-FUNCTIONS</li><li>11-MODULES</li><li>12-FILES I/O</li></ol>
<b>Learning and Teaching Strategies</b> استراتيجيات التعلم والتعليم	
<b>Strategies</b>	<ol style="list-style-type: none"><li>1- Learn specialized programming that will be the basis for building simple systems and applications in artificial intelligence</li><li>2- Learn more complex programming to begin building complex systems, applications, and projects in artificial intelligence.</li></ol>

## Student Workload (SWL)

الحمل الدراسي للطالب

<b>Structured SWL (h/sem)</b> الحمل الدراسي المنتظم للطالب خلال الفصل	78	<b>Structured SWL (h/w)</b> الحمل الدراسي المنتظم للطالب أسبوعياً	5
<b>Unstructured SWL (h/sem)</b> الحمل الدراسي غير المنتظم للطالب خلال الفصل	47	<b>Unstructured SWL (h/w)</b> الحمل الدراسي غير المنتظم للطالب أسبوعياً	3
<b>Total SWL (h/sem)</b> الحمل الدراسي الكلي للطالب خلال الفصل	125		

## 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, 3 and 6
	<b>Assignments</b>	2	10% (10)	2, 12	LO # 3, 4, 5 and 6
	<b>Projects / Lab.</b>	1	10% (10)	Continuous	
	<b>Report</b>	1	10% (10)	13	LO # 4, 5 and 6
<b>Summative assessment</b>	<b>Midterm Exam</b>	2 hr	10% (10)	7	LO # 1-6
	<b>Final Exam</b>	2hr	50% (50)	16	All
<b>Total assessment</b>			100% (100 Marks)		

## Delivery Plan (Weekly Syllabus)

المنهاج الأسبوعي النظري

	Material Covered
<b>Week 1</b>	<b>BASIC PYTHON SYNTAX</b>
<b>Week 2</b>	<b>VARIABLE TYPES</b>
<b>Week 3</b>	<b>BASIC OPERATORS</b>
<b>Week 4</b>	<b>DECISION MAKING</b>
<b>Week 5</b>	<b>LOOPS</b>
<b>Week 6</b>	<b>NUMBERS</b>
<b>Week 7</b>	<b>STRINGS</b>
<b>Week 8</b>	<b>LISTS</b>
<b>Week 9</b>	<b>DICTIONARY</b>
<b>Week 10</b>	<b>DICTIONARY</b>
<b>Week 11</b>	<b>FUNCTIONS</b>

Week 12	<b>FUNCTIONS</b>
Week 13	<b>MODULES</b>
Week 14	<b>FILES I/O</b>
Week 15	<b>FILES I/O</b>
Week 16	<b>Final Exam</b>

<b>Delivery Plan (Weekly Lab. Syllabus)</b> المنهاج الاسبوعي للمختبر	
	<b>Material Covered</b>
Week 1	<b>VARIABLE TYPES</b>
Week 2	<b>BASIC OPERATORS</b>
Week 3	<b>DECISION MAKING</b>
Week 4	<b>LOOPS</b>
Week 5	<b>NUMBERS</b>
Week 6	<b>STRINGS</b>
Week 7	<b>LISTS</b>
Week 8	<b>DICTIONARY</b>
Week 9	<b>FUNCTIONS</b>
Week 10	<b>MODULES</b>
Week 11	<b>FILES I/O</b>
Week 12	<b>FILES I/O</b>

<b>Learning and Teaching Resources</b> مصادر التعلم والتدريس		
	<b>Text</b>	<b>Available in the Library?</b>
<b>Required Texts</b>	<p>1.Tutorials point simply easy learning, " Python programming language , " copyrighted 2014.</p> <p>2- "Learning Python" by Mark Lutz 6th Edition - 2021</p>	Yes

<b>Recommended Texts</b>	<ul style="list-style-type: none"> <li>• "Python Crash Course" by Eric Matthes</li> <li>• "Python for Data Analysis" by Wes McKinney</li> </ul>	No
<b>Websites</b>	<a href="https://www.tutorialspoint.com/python/index.htm">https://www.tutorialspoint.com/python/index.htm</a>	

**APPENDIX:**

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