

Course description template: Fundamentals of Programming

	Course Name: .1
	Programming basics
	Course code: .2
	Determined by the scientific department
	Chapter/Year: .3
	First course
	Date of preparation of this description: .4
	2/9/2025
	Available attendance formats: .5
	In-person + online (when needed)
	Number of study hours (total) / Number of units (total): .6
	2 hours / 2 units
	Name of the course coordinator .7
	Name: M.M. Abbas Assem Mutashar Email: abbas.asim@uowa.edu.iq
	Course Objectives .8
<p>When it comes to programming, the goals are simple: to make Things are faster, easier, and more efficient. But how do we achieve this? Goals can vary greatly depending on The application. The programmer might want to create a new software application to speed up The process, or making it easier to use. On one hand Others might be working on making a program An existing one that works faster or uses less memory. Ultimately, the goal of programming is to make our lives easier. During task automation or problem-solving in new ways And innovative. As technology advances, the possibilities of what we can do increase. Its achievement using code is limitless. Identifying solid componentshw and soft sw and the role of programming languages in them Understanding the principles of programming in the languagePython</p>	<h3 style="color: red;">Course Objectives</h3>

Learn how to write programs in a language Python	
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Teaching and learning strategies .9

Theoretical lectures supported by practical examples. ✓ Classroom discussions and analysis of real-life case studies. ✓ Applied projects (short reports and research papers). ✓ Training in the use of quantitative methods for forecasting and decision making. ✓ E-learning through digital resources and educational videos. ✓	strategy
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Course structure .10

Evaluation Method	Learning method	Unit or topic name	Required learning outcomes	Hours	Week
Oral questions	Lecture + Discussion	Programming basics	Introduction to the fundamentals of programming	2	1
Short test	Lecture + Examples	Multiple programming languages	The most popular programming languages that can be easily learned	2	2
Short report	Lecture + Participation	=	=	2	3
duty	Lecture + Discussion	=	=	2	4
duty	Lecture + Exercise	Web development	Web development	2	5
Short test	Lecture + Case Study	Game development	Game development	2	6
duty	Lecture + Training	Mobile application development	Mobile application development	2	7
Monthly test	Lecture + Practical Exercise	Windows application development	Windows application development	2	8
Short report	Lecture + Discussion	=	=	2	9
duty	Lecture + practical examples	Artificial intelligence and machine learning	Artificial intelligence and machine learning	2	10
Short test	Lecture + Training	How to learn the basics of programming	How to learn the basics of programming	2	11
duty	Lecture + Case Study	Learn about the details of the Python programming language	Learn about the details of the Python programming language	2	12
a report	Lecture + Training	How to write in Python	How to write in Python	2	13
Class participation	Review + Exercises	Writing comments in Python	Writing comments in Python	2	14
final exam	written	The exam	Final exam	2	15

Short report	Lecture + Examples	Input and output operations in Python	Input and output operations in Python	2	16
duty	Lecture + Participation	variables in Python	variables in Python	2	17
duty	Lecture + Discussion	Explanation of data types in Python	Explanation of data types in Python	2	18
Short test	Lecture + Exercise	Functions in Python	Functions in Python	2	19
duty	Lecture + Case Study	=	=	2	20
Monthly test	Lecture + Training	=	=	2	21
Short report	Lecture + Practical Exercise	Logical values in Python	Logical values in Python	2	22
duty	Lecture + Discussion	Sequences and arrays in Python	Sequences and arrays in Python	2	23
Short test	Lecture + practical examples	How to create a dictionary in Python	How to create a dictionary in Python	2	24
duty	Lecture + Training	=	=	2	25
a report	Lecture + Case Study	Binary function in Python	Binary function in Python	2	26
Class participation	Lecture + Training	Operations in Python	Operations in Python	2	27
Short report	Review + Exercises	Making choices and decisions in Python	Making choices and decisions in Python	2	28
duty	Lecture + Examples	Python loops and exceptions	Python loops and exceptions	2	29
final exam	written	The exam	Final exam	2	30

Course evaluation .11

Grade distribution out of 100 According to the tasks assigned to the student, such as daily preparation, daily, oral, monthly, and written exams, reports, etc.

أ. Preparation and class participation: 10 marks

ب. Monthly test: 30 points

ج. Final exam: 60 marks

د. **Total = 100 points**

Learning and teaching resources .12

Learn Python for Beginners by the author Hadeel M. Taher	Required textbooks
Gutttag, JV (2013). <i>Introduction to computation and programming using Python</i> Mit Press.	Main References
Summerfield, M. (2010). <i>Programming in Python 3: a complete introduction to the Python language</i> . Addison-Wesley Professional.	Recommended supporting books and references

<https://blog.mostaql.com/programming-basics-for-begginers/>

Electronic references, websites

