



1. Basic Information

Program Title	All academic programs		
Department offering the Program			
Department Responsible for the Course	Computer and Systems Engineering Department		
Course Code	MUR112		
Year/ Level	Preparatory Year -2 nd Semester		
Specialization	Minor		
Teaching Hours	Lectures	Tutorial	Practical
	2	0	2

2. Course aims:

No.	aim
1	Understanding the basic components of computer systems, computer networks, operating systems and computer programming.

3. Learning Outcomes (LOs):

A1.1	Identify the basic components of computer systems.
A1.2	Identify the operation of computer networks.
A1.3	Identify the basic components of operating systems.
A1.4	Identify the types of computer programs.
A1.5	Know the basic components of computer programming.
A1.6	Apply programming techniques to solve some engineering problems.
A2.1	Conduct practical implementation using any available programming language to solve and/or simulate some engineering problems.

4. Course Contents:

No.	Topics	Week
1	Introduction to computer systems.	1
2	Basic components of computer systems.	1
3	Programming components.	2
4	Operating systems.	3
5	Computer networks.	4
6	Ready-to-use programs.	5
7	Programming languages.	6,7,8
8	Basic components of programming language using any available programs.	9,10,11
9	Applications.	12,13,14



5. Teaching and Learning Methods:

No.	Teaching Method
1	Interactive lectures
2	Flipped classroom
3	Research assignment

6. Teaching and Learning Methods of Disable Students:

No.	Teaching Method
1	Interactive lectures
2	Flipped classroom
3	Practical

7. Student assessment:

7.1 Student Assessment Methods:

No.	Assessment Method	LOs
1	Mid Term Examination (written)	A1.1, A1.2, A1.3, A1.4
3	Practical Examination	A1.6, A2.1
5	Final Term Examination (written)	A1.1, A1.2, A1.3, A1.4, A1.5, A1.6

7.2 Assessment Schedule:

No.	Assessment Method	Weeks
1	Mid Term Examination (written)	7
2	Practical Examination	14
3	Final Term Examination (written)	15

7.3 Weighting of Assessments:

No.	Assessment Method	Weights
1	Mid Term Examination (written)	20
2	Practical Examination	10
3	Final Term Examination (written)	70
Total		100%



8. List of References

No.	Reference List
1	Peter Van Roy, Seif Haridi, "Concepts, Techniques and Models of Computer Programming", The MIT Press (Feb. 20, 2012)
2	Robert C. Seacord, "Effective C: An Introduction to Professional C Programming", No Starch Press (August 4, 2020).

9. Facilities Required for Teaching and Learning:

No.	Facility
1	Lecture Classroom
2	Lab Facilities
3	White Board
4	Data Show System
5	Visualizer
6	Presenter
7	Sound System

10. Matrix of Knowledge and Skills of the Course:

No.	Topic	aim	LO's
1	Introduction to computer systems.	1	A1.1
2	Basic components of computer systems.	1	A1.1, A1.2
3	Programming components.	1	A1.1, A1.2, A1.3
4	Operating systems.	1	A1.5, A1.6
5	Computer networks.	1	A1.5, A1.6
6	Ready-to-use programs.	1	A1.5, A1.6, A2.1
7	Programming languages.	1	A1.5, A1.6, A2.1
8	Basic components of programming language using any available programs.	1	A1.5, A1.6, A2.1
9	Applications.	1	A1.5, A1.6, A2.1

Course Coordinator: Prof. Amira Y. Haikal

Head of Department: Prof. Mohamed Mohamed Metwally El Gamal

Date of Approval:



Course: Introduction computer programming	
Program LOs	Course LOs
A1. Identify, formulate, and solve complex engineering problems by applying engineering fundamentals, basic science and mathematics.	A1.1 Identify the basic components of computer systems. A1.2 Identify the operation of computer networks. A1.3 Identify the basic components of operating systems. A1.4 Identify the types of computer programs. A1.5 Know the basic components of computer programming. A1.6 Apply programming techniques to solve some engineering problems.
A2. Develop and conduct appropriate experimentation and/or simulation, analyze and interpret data, assess and evaluate findings, and use statistical analyses and objective engineering judgment to draw conclusions.	A2.1 Conduct practical implementation using any available programming language to solve and/or simulate some engineering problems.