University : Mansoura University
Faculty : Faculty of Computers and Information
Department : Computer Science

1- Course data :-

Code:	CS112P	Course name:	اساسيات البرمجه	Study year:	أولي القسم العام
Specialization:	• بكالوريوس الحاسبات المعلومات علوم الحاسب				
Teaching Hours:					
	Lecture:	2	Tutorial:	Practical:	3
Number of units:	8				

2- Course aims :-

1. This course aims to teach students the fundamentals of programming

3- Intended learning outcomes of course (ILOS) :-

a- Knowledge and understanding

1. [a1] Essential facts, concepts, principles and theories relating to computing and information and computer applications as appropriate to the program of study.
2. [a3] Knowledge of the tools, practices and methodologies used in the specification, design, implementation and evaluation of computer software systems..
3. [a7] Principals of generating tests which investigate the functionality of computer programs and computer systems and evaluating their results.
4. [a13] Understand the essential mathematics relevant to computer science.
5. [a14] Use high-level programming languages.

b- Intellectual skills

1. [b1] Analyze computing problems and provide solutions related to the design and construction of computing systems.
2. [b2] Realize the concepts, principles, theories and practices behind computing and information as an academic discipline.
3. [b4] Analyze, propose and evaluate alternative computer systems and processes taking into account limitations, and quality constraints.
4. [b5] Make ideas, proposals and designs using rational and reasoned arguments for presentation of computing systems.
5. [b6] Evaluate the results of tests to investigate the functionality of computer systems.
6. Define traditional and nontraditional problems, set goals towards solving them, and. observe results.
7. [b16] Establish criteria, and verify solutions.
8. [b17] Identify a range of solutions and critically evaluate and justify proposed design solutions.
9. [b18] Solve computer science problems with pressing commercial or industrial constraints.
10. [b19] Generate an innovative design to solve a problem containing a range of commercial and industrial constraints.

c- Professional and practical skills

1. [c1] Operate computing equipment, recognizing its logical and physical properties, capabilities and limitations.
2. [c2] Implement comprehensive computing knowledge and skills in projects and in deployment of computers to solve position practical problems. [c3] Use appropriate programming languages, web-based systems and tools, design methodologies, and knowledge and database systems.
3. [c5] Develop a range of fundamental research skills, through the use of online resources, technical repositories and library-based material.
4. [6] Design, implement, maintain, and manage software systems.
5. [15] Specify, design, and implement computer-based systems.
6. [16] Evaluate systems in terms of general quality attributes and possible tradeoffs presented within the given problem.

d- General and transferable skills

1. [d1] Demonstrate the ability to make use of a range of learning resources and to manage one's own learning.
2. [d2] Demonstrate skills in group working, team management, time management and organizational skills.
3. [d3] Show the use of information-retrieval.
4. [d5] Exhibit appropriate numeracy skills in understanding and presenting cases involving a quantitative dimension.

4- Course contents :-

No	Topics	Week
1	Introduction to programming concepts	1st and 2nd
2	Algorithms and Flowchart	3rd and 4th
3	Elementary Sequential Structure	5th
4	Operators	6th
5	Conditional Structure	7th and 8th
6	Loop Structure	9th and 10th
7	Methods	11th and 12th
8	Arrays	13th

5- Teaching and learning methods :-

No	Method
1	White Board
2	Data Show
3	Self Study Lessons

6- Teaching and learning methods of disables :-

1. audio lectures

7- Activities and sources of teaching and learning :-

S	Activities and resources
1	Book
2	Recommended Reference

8- Student assessment :-

a- Student assessment methods

No	Method
1	Paper and computer based Quiz and Exams

b- Assessment schedule

No	Method	Week
1	Quiz	3
2	Mid_term	6
3	Practical Exam	10
4	Oral Exam	11
5	FinalTerm Exam	14

c- Weighting of assessments

No	Method	Weight
1	Mid_term examination	5
2	Final_term examination	60
3	Oral examination	10
4	Practical examination	20
5	Other types of assessment	5
Total		100%

9- List of references

No	Item	Type
1	Fundamentals of Programming	Books
2	C# How to Program	Open books
3	What Programming Actually Is	Course notes
4	Microsoft Visual C# 2013 Step by Step	Open books

10- Matrix of knowledge and skills of the course

No	Items	Details
1	Course contents	introduction to programming concepts
		Algorithms and Flowchart
		Elementary Sequential Structure
		Operators
		Conditional Structure
		Loop Structure
		Methods
		Arrays
2	Teaching and learning methods	White Board
		Data Show
		Self Study Lessons
3	Activities and sources of teaching and learning	Book
		Recommended Reference

4	Student assessment	Paper and computer based on Quiz and Exams

Course Coordinator: - Dr. Osama Abu El Nasr

Head of department: - Dr. Samir Elmougy