

Ministry of Higher Education and Scientific Research

Supervision and Scientific Evaluation Body

Quality Assurance and Academic Accreditation Office

Course Description Sample

Subject: -----Architecture and assembly language-----

This course description provides a brief survey of the most important characteristics, expected learning output, showing whether students have made full use of the learning opportunities. These characteristics have to be matched with the description of the program.

1. Educational Institution	Shatt Al-Arab University College
2. Department / Center	Computer science
3. Course Title /Code	architecture and assembly language
4. Lecturer Name	Asst. prof. Dr. Mazin Abdulelah Alawan
5. Type of Teaching	Attendance
6. Academic Year /Term	Year
7. Total No. of Teaching Hours	60
8. Date of Preparing this Course Description	28/9/2022

9. Course Objectives

a. Empowering the 90 students of the second stage of the Computer Science Department in the morning and evening studies.
b. Understand the structure of microprocessors
c. the instructions of assembly programming language.

10. Course Output, Methodology and Evaluation

(A) Cognitive Objectives

A1- Knowing the different types of recorders
A 2- Studying the internal structure of memory and how to deal with memory sites
A3- Study of paths, vectors and machine language
A4- Studying assembly language directives
A5- Memory addressing
A6- Convert instructions into machine language

(B) Skill Objectives Related to the Program:

B1 - Study assembly language directives
B2 - Addressing memory
B3 - Study paths, vectors and machine language

Methods of Teaching and Learning

a. Using already- prepared lectures.
b. Using up-to-date data shows.
c. Homework
d. Adopting group discussions.

Methods of Evaluation

a. Oral tests
b. Monthly tests
c. Daily quizzes
d. Students' Regular Attendance

(C) Sentimental and Value Objectives

C1- Introducing the 8086/8088 . Personal Computer Processor
C2- Study of the internal structure

Methods of Teaching and Learning

a. Lectures on university instructions.
b. Educational guidance lectures.
c. Continuous directing.
d. Visiting State and private institutions.
e. Showing practical cases.

Methods of Evaluation

a. Daily quizzes.
b. Classroom discussions and commitment to ethics and sublime values.
c. Special marks for class activities.
d. Monthly and quarterly evaluation.

D) General and Qualitative Skills (other skills related to the ability of employment and personal development)

D1- Studying the internal structure of memory and how to deal with memory sites
D2- Study paths, vectors and machine language
D 3- Studying assembly language directives

11. Course Structure

Week	No of Hours	Required Learning Output	Title of Subject	Teaching Method	Evaluation
1	2	Processor architecture		- lectures - case study -discussions	- oral tests -questions

2	2	Processor software model		- lectures - case study - discussions	- oral tests - questions
3	2	memory addressing		- lectures - case study - discussions	- oral tests - questions
4	2	registers		- lectures - case study - discussions	- lectures - case study - discussions
5	2	Flag register		- lectures - case study - discussions	- lectures - case study - discussions
6	2	Memory address generation		- lectures - case study - discussions	- lectures - case study - discussions
7	2	memories		- lectures - case study - discussions	- lectures - case study - discussions
8	2	Execute the instruction		- lectures - case study - discussions	- lectures - case study - discussions
9	2	buses		- lectures - case study - discussions	- lectures - case study - discussions
10	2	Introduction to assembly language programming		- lectures - case study - discussions	- lectures - case study - discussions
11	2	Directives		- lectures - case study - discussions	- lectures - case study - discussions
12	2	Addressing mode		- lectures - case study - discussions	- lectures - case study - discussions
13	2	Convert assembly language instruction to machine language		- lectures - case study - discussions	- lectures - case study - discussions
14	2	Convert machine language		- lectures	- lectures

		instruction into assembly language		- case study -discussions	- case study -discussions
15	2	assembly language instructions mov . instruction		- lectures - case study -discussions	- lectures - case study -discussions
16	2	Assembly language instructions xchg . instruction		- lectures - case study -discussions	- oral tests -questions
17	2	Assembly language instructions push and pop instruction		- lectures - case study -discussions	- oral tests -questions
18	2	Assembly language instructions in and out instructions		- lectures - case study -discussions	- oral tests -questions
19	2	Assembly language instructions Boolean instructions		- lectures - case study -discussions	- lectures - case study -discussions
20	2	Assembly Language Instructions Flip Instruction		- lectures - case study -discussions	- lectures - case study -discussions
21	2	Assembly Language Instructions Rotation Instructions		- lectures - case study -discussions	- lectures - case study -discussions
22	2	Assembly Language Instructions addition Instruction		- lectures - case study -discussions	- lectures - case study -discussions
23	2	Assembly language instructions Subtraction instruction		- lectures - case study -discussions	- lectures - case study -discussions
24	2	Assembly Language Instructions Multiplication Instruction		- lectures - case study -discussions	- lectures - case study -discussions
25	2	Assembly Language Instructions Division Instruction		- lectures - case study -discussions	- lectures - case study -discussions
26	2	Assembly language		- lectures	- lectures

		instructions comparison instruction		- case study -discussions	- case study -discussions
27	2	Assembly language instructions Unconditional jump instruction		- lectures - case study -discussions	- lectures - case study -discussions
28	2	Assembly language instructions modal jump instruction		- lectures - case study -discussions	- lectures - case study -discussions
29	2	Assembly language instructions Rotation instruction		- lectures - case study -discussions	- lectures - case study -discussions
30	2	Assembly language instructions lahf . instruction		- lectures - case study -discussions	- lectures - case study -discussions

12. Infrastructure

a. Textbooks	تنظيم و عمارة الحاسوب
b. References	معمارية الحاسوب
c. Recommended books and periodicals (journals, reports, etc.)	كتاب معمارية الحاسوب للمهندس معاذ الخضر
d. Electronic references, internet websites, etc	google

13. The Plan of Improving the Course

1- Some deletions and additions can be made to the vocabulary in the course, for example, the way the control unit works and the methods of managing recent memory
2- Other textbooks can be added