

# (Computer Organization)

## A- Basic Information

1. **Title and Code** Computer Organization/  
**CS312**
2. **Programme(s) on which this course is given** Computer Science
3. **Academic year / Level of Programme** 3<sup>rd</sup> year / 1<sup>st</sup> semester
4. **Units/Weekly hours**

Lecture  Tutorial/Practical  Total

### 5. Names of lecturers contributing to the delivery of the course

- Dr. Mohammed Shoala

**Course co-ordinator** : Dr. Mohammed Shoala

**External evaluator** : Not assigned yet.

## B- Statistical Information

No. of students attending the course: No.  %

No. of students completing the course: No.  %

### Results:

Passed: No.  %  Failed: No.  %

### Grading of successful students:

Excellent: No.  %  Very Good: No.  %

Good : No.  %  Pass: No.  %

## C- Professional Information

1 – Course Teaching

Topics actually taught	No. of hours	Lecturer
<b>1 Introduction</b>	3	<b>Dr. Mohammed Shoala</b>
<b>2 Computer Operations</b> <ul style="list-style-type: none"><li>• Introduction.</li><li>• Register transfer and Microoperations.<ul style="list-style-type: none"><li>• Bus transfer and Processor unit.</li><li>• Arithmetic, logic, and shifter units.<ul style="list-style-type: none"><li>• Control word.</li></ul></li></ul></li></ul>	12	<b>Dr. Mohammed Shoala</b>

<b>3 Control Logic Design</b> <ul style="list-style-type: none"> <li>• Introduction.</li> <li>• Microprogrammed control. <ul style="list-style-type: none"> <li>• Processor unit control.</li> </ul> </li> <li>• Design of simple computer.</li> </ul>	15	<b>Dr. Mohammed Shoala</b>
<b>4 Computer Instructions</b> <ul style="list-style-type: none"> <li>• Introduction.</li> <li>• Address field.</li> <li>• Addressing modes.</li> <li>• Stack organization.</li> <li>• Data transfer instructions.</li> <li>• Data manipulation instructions. <ul style="list-style-type: none"> <li>• Floating point operations.</li> </ul> </li> <li>• Programme control instructions. <ul style="list-style-type: none"> <li>• Programme interrupt.</li> </ul> </li> </ul>	12	<b>Dr. Mohammed Shoala</b>
<b>5 CPU Design</b> <ul style="list-style-type: none"> <li>• Introduction.</li> <li>• Arithmetic logic shift unit. <ul style="list-style-type: none"> <li>• Processor unit.</li> </ul> </li> <li>• Instruction and microinstruction formats.</li> <li>• Microprogramme for computer cycle. <ul style="list-style-type: none"> <li>• Microprogramme routine. <ul style="list-style-type: none"> <li>• Control unit.</li> </ul> </li> </ul> </li> </ul>	18	<b>Dr. Mohammed Shoala</b>
<b>6 Memory Organization</b> <ul style="list-style-type: none"> <li>• Memory hierarchy.</li> <li>• Special types of memory.</li> <li>• Magnetic and optical memories. <ul style="list-style-type: none"> <li>• Associative memories. <ul style="list-style-type: none"> <li>• Cache memory.</li> <li>• Virtual memory.</li> </ul> </li> </ul> </li> <li>• Memory management hardware.</li> </ul>	12	<b>Dr. Mohammed Shoala</b>
<b>7 I/O Organization</b> <ul style="list-style-type: none"> <li>• Introduction.</li> <li>• Parallel interfacing.</li> <li>• CPU-initiated data transfer.</li> <li>• Interfacing data converters.</li> <li>• I/O-initiated data transfer. <ul style="list-style-type: none"> <li>• Serial I/O.</li> </ul> </li> </ul>	12	<b>Dr. Mohammed Shoala</b>

**Topics taught as a percentage of the content specified:**

>90 %

70-90 %

<70%

**2- Teaching and Learning Methods:**

Lectures:

Practical Training/ Laboratory:

Seminar/Workshop:

Class Activity:

Case Study:

Other Assignments/Homework:

### 3- Student Assessment:

Method of Assessment	Percentage of total
Written examination	70
Oral examination	10
Practical/laboratory work	-
Other Assignments/class work	20
Total	100 %

### Members of Examination Committee

Dr. Mohammed Shoala  
Mr. Abd El\_Aleem Kamal

### Role of external evaluator:

External evaluator not assigned yet.

### 4- Facilities and Teaching Materials:

Totally adequate

Adequate to some extent

Inadequate

### 5- Administrative Constraints

- Insufficient Class rooms and Halls.
- There are no labs for this course.

### 6- Student Evaluation of the course:

-Need more Case studies.  
-Need practical exercises.

### Response of Course Team

-Increase the case study .  
-Add more practical exercises.

### 7- Comments from external evaluator(s):

External evaluator not assigned yet.

### 8- Course Enhancement:

#### Progress on actions identified in the previous year's action plan:

This is the first year and no previous action Plan.

**Course Coordinator:** Dr. Mohammed Shoala

**Signature:**

**Date:**