## A COURSE MODULE DESCRIPTOR FORM

(Course Book)

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| Module Information |
| **Course Module Title** | **Computer Organization**  |
| **Course Module Type** | General  | **Module Code** |  ECS06 |
| **ECTS Credits** | 5 | **Module Level** | **1st** |
| **Semester of Delivery** | Spring Semester  | **Dept. Code** | IT |
| **College (Code)** | Engineering and Computer Science  |
| **Module Website (CMW)** | https://ums.lfu.edu.krd/# |
| **Module Leader (ML)** |  Ahmed Salahalddin Muhammed |
|  **e-mail** |  Ahmed.salahaddin@lfu.edu.krd |
| **ML Acad. Title** | Assistant Lecturer | **ML Qualification** | MSc. |
| **ML ORCID** | [**https://orcid.org/my-orcid?orcid=0000-0001-9854-3107**](https://orcid.org/my-orcid?orcid=0000-0001-9854-3107) |
| **ML Google Scholar Acc.** |  |
| **Course Module Tutor** |  |
| **Module Tutor email** |  |
| **Date Approved** | 2023 | **Version Number** | 1.0 |

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| Relation with Other Modules |
| **Pre-requisites** | **N/A** |
| Module Aims, Learning Outcomes and Indicative Contents |
| Module Introductory Description |  This course will help the student obtain knowledge in computer Organization, by the end of this course the student become more understand to architecture of computers and hardware.This course will help the student to run an operating system, and understand how computer systems work internallyDuring this course the students will be familiar with difference of computer Architecture with Computer organization. |
|  Module Aims | Teaching the students the basics of Computer System, types of computers and What is the Organization and function of computers. |
| Module Learning Outcomes | By the end of this module students must be able to:1. Students will be able to understand how computer systems work internally.
2. Students will be familiar with difference of computer Architecture with Computer organization.
3. They can imagine the work of computer processors
4. They can imagine the function of ALU, registers, bus system, etc.
5. They can perform arithmetic operations in ALU.
6. Manipulate physical and logical addressing.
7. They can analyze and design various combinational logic circuits.

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| Learning and Teaching Strategies |
| **Strategies** | The module will be delivered to the students through the use modern technology, case study, reading material, flipped classroom, video and case analysis. The student-centered approach will be applied. The strategies to be implemented to target students learning outcome.  |

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| Module Delivery |
| **Structured workload (h/w)** | 3 Hours/ Week |
| **Unstructured workload (h/w)** | 7.8 Hours/ Week |
| **Total workload (h/w)** | 10.8 Hours/Week |

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| Module Assessment |
| **A** | **Time/Number** | **Weight (Marks)** | **Week Due** | **Relevant Outcome** |
| **Class Activity & Brainstorming** | Daily | 10% | Weekly | To be more engaged in class |
| **Quiz 1** | One time  | 5% | Week 3 |  |
| **Creating a Report**  | One time  | 10% | Week 5 | To apply the knowledge, they obtained from Computer Organization  |
| **Presentation**  | One time  | 10% | Week7 | To practice the knowledge, they obtained in class  |
|  **Quiz 2** | One time | 5% | Week 9 |  |
| **Midterm** |  | 20% | Week 8 |  |
| **Final Exam (Theory)** |  | 40% | Week 15 |  |
| **Total**  |  | 100% (100 Marks) |  |  |

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| Learning and Teaching Resources |
|  | **Text** | **Available in the Library?** |
| **Required Texts** | **N/A** |  |
| **Recommended Texts** | N/A |  |
| **Keywords**  | Computer , Bus , Mobile , Block. Hardware , software. |

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| **Delivery Plan (Syllabus)** |
| **Week**  | **Material Covered** |
| **Week 1** | Introduction about computer Organization  |
| **Week 2** | Basic Structure of Computers |
| **Week 3** | Mechanical Devices |
| **Week 4** | Electronic Computers |
| **Week 5** | Computer Components (Block Diagram) |
| **Week 6** | Mobile Computers |
| **Week 7** | Stationary Computers **(Normal pc and Server)** |
| **Week 8** | Midterms |
| **Week 9** | Stationary Computers **(Mainframes and Supercomputers)** |
| **Week 10** | Introducing the students to Bus System. |
| **Week 11** | Introducing the students to Cache Memory |
| **Week 12** | Introduction to Control Unit |
| **Week 13** | Introduction to ALU |
| **Week 14** | Introduction to Buffers |
| **Week 15** | Review  |

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| Course Keywords |
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### APPENDIX: (Help and Information)

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| Percentage to Grade Chart |
| Marks | Level | ئاست |
| 90 – 100  | Excellent | نایاب |
| 80 - < 90  | Very Good | زۆر باش |
| 70 - < 80  | Good | باش |
| 60 - < 70  | Medium | ناوەند |
| 50 - < 60  | Pass | پەسەند |
| 0 - < 50 | Fail | کەوتوو |