

**Faculty of Computers and Information Technology**

**Computer Architecture**

**Information :**

**Course Code :** CSC 323

**Level :** Undergraduate

**Course Hours :** 3.00- Hours

**Department :** Cybersecurity Program

**Description :**

The course provides fundamentals of current computer architecture and design, which is a rapidly evolving discipline, covering the major themes in computer hardware architecture and design, allowing students to understand and apply basic and advanced concepts in the field. Topics covered in this course are registers, counters, register transfer language, bus and memory transfer, arithmetic micro-operations, logic micro-operations, shift micro-operations, instruction codes, computer registers, computer instructions, timing cycle, instruction cycle, memory reference instructions, input-output and interrupt, design of basic computer, design of accumulator logic, control memory, address sequencing, microprogrammed control unit, memory hierarchy. Hands on experience is provided through a series of exercises, assignments, and projects.