

CS 142 - Computer Architecture and Organization

This course introduces the fundamental concepts of computer organization and assembly language programming. Instructors guide students on the basic Instruction Set Architecture and hardware of a modern computer processor. The course explores how computer systems execute programs; the representation of characters, integers, and floating point values; and the manipulate data, working from a high level programming language down to the hardware. Topics also include the processor pipeline, memory hierarchy, and calling conventions. Programs emphasize assembly language coding standards and debugging techniques.

Letter Grade, Pass/No Pass

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Transferable to both UC and CSU

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