COURSE DETAIL

COMPUTER ARCHITECTURE AND DESIGN
Country United Kingdom - Scotland
Host Institution University of Edinburgh
Program(s) University of Edinburgh
UCEAP Course Level Upper Division
UCEAP Subject Area(s) Computer Science
UCEAP Course Number 156
UCEAP Course Suffix
UCEAP Official Title COMPUTER ARCHITECTURE AND DESIGN
UCEAP Transcript Title COMP ARCH & DESIGN
UCEAP Quarter Units 8.00
UCEAP Semester Units 5.30

Course Description
In this course, students learn how to design a computer and understand the performance characteristics of computers. Students first acquire a working knowledge of digital design, through the Verilog Hardware Description Language, along with a good theoretical grounding in the design of the key components of a microprocessor. Students learn, both theoretically and practically, how the quantitative approach to computer architecture enables computer architects to analyze and optimize microprocessors to maximize performance. Students spend time in the lab, designing real hardware, and later in the course applying recently-acquired knowledge of quantitative computer architecture to analyze a simulated system and optimize its performance.

Language(s) of Instruction
English

Host Institution Course Number
INFR10076

Host Institution Course Title
COMPUTER ARCHITECTURE AND DESIGN

Host Institution Course Details
http://www.drps.ed.ac.uk/24-25/dpt/cxinfr10076.htm

Host Institution Campus
Edinburgh

Host Institution Faculty

Host Institution Degree

Host Institution Department
Informatics

Course Last Reviewed
2024-2025

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