ECE 3445: Computer Architecture

Fundamentals of instruction sets and their efficient execution - e.g., pipelines, caches, out-of-order execution, and branch prediction mechanisms. Performance analysis, superscalar, VLIW, multithreading, and multiprocessing are among the topics studied. Trace-driven simulators are used in practicums to explore concepts learned in class. Three lecture hours with a two-hour practicum each week.

Credits: 4.0
Prerequisites:
ECE 2043
ECE 2044
ECE 2045
ECE 2043 and ECE 2044 and ECE 2045
Program: Electrical and Computer Engineering