

Computer Systems Engineering

- ECE department supports two grad degree programs
 - Electrical Engineering
 - Computer Engineering
- Different course requirements
- Different Qualifying exam
- Same faculty (for the most part)

ECE 563 – Introduction to VLSI

- Prof. Ben Calhoun
- Tu-Th 2 pm MSB 125
- Digital CMOS circuit design and analysis: combinational and sequential circuits, arithmetic structures, memories.
- Modern design issues: leakage, optimization, clocking, and interconnect.
- VLSI circuit design, simulation, and layout.

Prerequisite: Computer Architecture; circuits

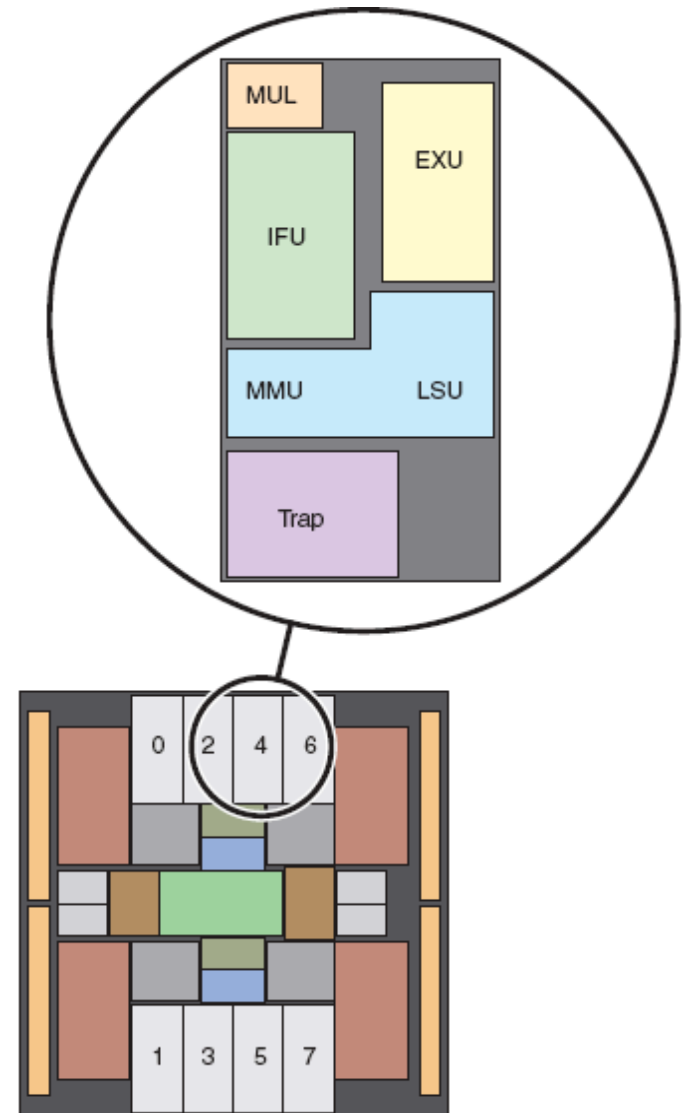
ECE 635 – Computer Organization and Design

- Prof. Ron Williams
- Tu-Th 9 am Thn E 316
- Hardware Design with VHDL
- Required for computer engineering (or CS 654)

ECE686 - Top-Down System on Chip Design

- Tu-Th 3:30pm E 304
- emphasize synthesis and automated physical design
- CAD tools from Cadence
- RTL Compiler
- Encounter
- simple 8051 8-bit core
- Sparc compatible Leon 32-bit core
- multithredded multicore Niagara
- technology 90nm CMOS ST Micro

Prerequisite: ECE 563 Intro to VLSI or corequisite and special permission



ECE/CS 757 Computer Networks

- Prof. Malathi Veeraraghavan
- MW 3:30 PM Thn A 119
- Analyzes network topologies; backbone design; performance and queuing theory; data-grams and virtual circuits; technology issues; layered architectures; standards; survey of commercial networks, local area networks, and contention-based communication protocols; encryption; and security.
- Cross-listed as CS 757.