

## El E 385: Advanced Digital Systems Electrical and Computer Engineering

Advanced Digital Systems: RTL hardware design using VHDL; coding, simulation, synthesis, and implementation of digital system in FPGA; combinational and sequential building blocks; timing analysis; trade- offs in design metrics; overview of transistor-level design; arithmetic circuits; number system; memory arrays; logic arrays; temporal and spatial parallelism.

3 Credits

# Prerequisites

- El E 235: Principles of Digital Systems (Minimum grade: C-)
- Pre-Requisite: 24 Earned Hours

#### Corequisites

• El E 386: Advanced Digital Systems Laboratory

### Instruction Type(s)

• Lecture: Lecture for El E 385

#### **Subject Areas**

- Computer Engineering, General
- Electrical and Electronics Engineering

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