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**
- 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