

# El E 481: Fund. Low Power Dig. VLSI Design Electrical and Computer Engineering

Techniques to constrain designs, run static timing analysis, evaluate datapath logic, run physical synthesis, optimize for low-power structures, analyze DFT (design for test-ability) constraints, and interface with other tools. Exploration and implementation of several low-power techniques to reduce both dynamic and leakage power during synthesis, including multiple supply voltage (MSV) design, power shutoff (PSO) synthesis and dynamic voltage frequency scaling (DVFS) synthesis, low-power flow using CPF and IEEE 1801 and troubleshoot a low-power design, and formal verification of power constraints and ensure the functionality of a low-power design.

3 Credits

## **Prerequisites**

• El E 385: Advanced Digital Systems

• Pre-Requisite: 24 Earned Hours

## Instruction Type(s)

• Lecture: Lecture for El E 481

### Subject Areas

• Computer Hardware Engineering

### **Related Areas**

• Computer Engineering, General

The University of Mississippi is accredited by the Southern Association of Colleges and Schools Commission on Colleges to award certificates and baccalaureate, master's, specialist, and doctoral degrees. Contact the Commission on Colleges at 1866 Southern Lane, Decatur, Georgia 30033-4097, call 404-679-4500, or visit online at www.sacscoc.org for questions about the accreditation.

