ECE 4320 – Power System Analysis and Control

Fall 2010, Prof. Santiago Grijalva

**Description:** This course introduces electric power generation, distribution, system control and economic operation. It provides the fundamentals for advanced courses on electrical energy systems, smart grid, and electricity economics. Modeling and simulation uses specialized software.

Pre-requisites: ECE 3070

Time and Place: MWF: 1:05 –1:55, Van Leer C457

Instructor: Prof. Santiago Grijalva

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Office Phone: (404) 894-2974

Office Hours: W: 10 – 12 or by appointment


Instructor will provide additional notes for several topics.

Grading Policy: Homework (25%)

3 one-hour Midterms (15% each)

1 two-hour Final Exam (30%)

**Topics:**

1. Introduction to Large-Scale Electric Power Systems
2. Transmission Line Modeling
3. Transformer Modeling
4. Generation Modeling
5. Automatic Generation Control
6. Steady-State Analysis and Simulation
7. Economic Operation