

<b>Department</b>	Electrical and Computer Engineering
<b>Course Number</b>	<b>EELE 456</b>
<b>Course Title</b>	Power System Operation and Control
<b>Total Credit Hours and Format</b>	3 Credits. Lec, S
<b>Catalog Description</b>	PREREQUISITE: EELE 454 Continuation of EELE 454. Introduction to load frequency control, voltage control, economic dispatch, SCADA and synchrophasors, state estimation and power system stability.
<b>Faculty Coordinator</b>	Hashem Nehrir
<b>Course Designation</b>	Elective
<b>Textbook</b>	Power System Analysis and Design, Fifth Edition; Glover, Sarma, Overbye; Cengage Learning, 2012.
<b>Course Learning Outcomes</b>	At the conclusion of EELE 456, students are expected to: <ol style="list-style-type: none"> <li>1. Understand in considerable detail the concepts of load-frequency control.</li> <li>2. Understand the basic concepts of voltage control in a power system.</li> <li>3. Understand basic power system stability concepts.</li> <li>4. Understand the use of SCADA and synchrophasors in power system operations.</li> <li>5. Understand state estimation.</li> </ol>
<b>Program Outcomes</b>	a, e, k
<b>Topics Covered</b>	<ol style="list-style-type: none"> <li>1. Load-frequency control</li> <li>2. Voltage control</li> <li>3. Economic dispatch</li> <li>4. SCADA</li> <li>5. State estimation</li> <li>6. Power system stability</li> </ol>
<b>Prepared by</b>	Hashem Nehrir (05/01/2015)