Course Syllabus	**EECS 4240 – Power Systems Operation**
Credits & Contact Hours	3 credit hours & 150 minutes classroom contact per week.
Instructor's Name	Dr. Raghav Khanna
Textbook	N. Mohan, "Electric Power Systems: A First Course," John Wiley & Sons, ISBN: 978-1-118-07479-4.
Course Information	Steady-state modeling and analysis of electric power systems, modeling of essential power system network components, such as transformers, transmission lines, three-phase power network analysis, and new grid technologies. Prerequisite: EECS 3460 Elective course for EE program
Specific Goals-Student Learning Objectives	The student will be able to 1. Understand the functions of the main components in a power system, and their basic models in the steady state operation 2. Build a system representation from the components' circuit models, and apply solution techniques to address certain operational needs. 3. Understand how transformers work. 4. Draw one line diagrams of power distribution network
Topics	1. Electric transformers and per-unit analysis 2. 3-phase power and power factor correction 3. Transmission line parameters 4. Transmission line steady-state operation 5. Power flows 6. The Smart grid