Exam 1 Coverage

- Voltage stability
- Intro to power system dynamics; NERC planning criteria
- Various papers on terms/definitions, process dynamics, DSA practices, security states, online DSA,
- Chapter 2:
  1. Swing equation, torque,
  2. Classical model
  3. Power-angle time domain
  4. Equal area criterion
  5. Multi-machines
  6. Numerical integration
- Chapter 4:
  1. Preliminary fundamentals
     a. Flux, magnetic circuits
     b. CFLT
     c. Rotating mag fields in synchronous machine

Exam 1 Format

- Closed book, closed notes, 50 minutes.
- Calculator allowed, but no comm device
- 2-4 probs; pssbly also shrt answr &/or T/F
- Off campus students: see next slide; I will release exam Monday morning; it must be taken 8am-9pm on Monday.

Suggested Study Approach

1. Check your HW against solutions.
2. Make sure you know how to do all HW problems.
2. Review and study all in-class notes and review corresponding material in text.
3. Review materials in additional reading (papers on website).
**Other info for off-campus students**

Exams for off-campus students: Off-campus students (those enrolled in EE 554 XE) have three options regarding taking exams (on-campus students must take exams via option 1):

1. **Option 1**: Come to campus and take the exam with the rest of the class during normal class time (12:10-1:00pm).
2. **Option 2**: Come to campus and take the exam at one of the ISU testing center locations during the allowed scheduled time. The ISU testing center locations are 2552 Gilman Hall, 60 Carver Hall, and 139 Durham Center. In this case, your proctor will be the "Gilman Testing Center," which you can implement by following the instructions for finding a proctor here: [http://www.testcenter.iastate.edu/need-a-proctor/](http://www.testcenter.iastate.edu/need-a-proctor/).

If you do not live in or reasonably close to Ames, Iowa, then Options 1 and 2 may not be realistic for you.

3. **Option 3**: Take the exam via the proctoring and testing system. This option is the one most off-campus students will need to select. This option requires that you find a proctor which you can do by following the instructors for finding a proctor here: [http://www.testcenter.iastate.edu/need-a-proctor/](http://www.testcenter.iastate.edu/need-a-proctor/).

**What happens after I have registered my proctor?**

1. Emails will be sent to student and proctor confirming the approval.
2. Immediately upon receipt, Students should verify their proctor has received an email and notify the ISU testing center of any problems.
3. When the exam is released by the instructor, you and your proctor will be emailed exam instructions.
4. Arrange a time to take the exam with your proctor.