

ECEN 667 – Power System Stability
Fall 2017 TR 11:10-12:25pm ETB 1035

Instructor: Prof. Tom Overbye, 308C WEB, overbye@tamu.edu

Office Hours (tentative): Tuesday 3-5 pm

Instructor Website: overbye.engr.tamu.edu

Course Website: overbye.engr.tamu.edu/course/ecen667fa2017/

Prerequisite(s): ECEN 460 or consent of instructor

Text: P. W. Sauer and M. A. Pai, *Power System Dynamics & Stability*, Prentice-Hall, 2007.

TA: Iyke Idehen, iidehen@tamu.edu

TA Office Hours: Wednesday 2-4pm (tentative)

Course Syllabus

Approx. # of hours

Introduction to power system structures and simulation	3
Electromagnetic transients	2
Synchronous machine modeling	6
Excitation system modeling	2
Turbine-Governor modeling	3
Time-scales and reduced-order models	2
Interconnected multi-machine modeling	5
Transient stability analysis	5
Linearized modeling and the control problem	3
Signal analysis	5
Power System Stabilizer (PSS) design	4
Energy function methods	<u>3</u>
Total	43

Evaluation: Midterm Exams	25%
Final exam	40%
Homework and project	35%

Tentative Dates for Midterm: Tuesday, October 17, In Class

Comprehensive Final Exam: Friday, December 8, 3 to 5pm

NoteSheets for Exams: All exams are closed-book, closed-notes. You may bring in one notesheet (8.5" by 11"), and may use standard calculators.

Grading

All grading in the course is based on a percentage with final grades determined based on this percentage. If your final average falls within the below ranges you are guaranteed to receive at least the letter grad indicated: A: 90-100; B: 80-89; C: 70-79; D: 60-69; F: 59 or lower

Americans with Disabilities Act (ADA)

The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you believe you have a disability requiring an accommodation, please contact Disability Services, currently located in the Disability Services building at the Student Services at White Creek complex on west campus or call 979-845-1637. For additional information, visit <http://disability.tamu.edu>.

Academic Integrity

For additional information please visit: <http://aggiehonor.tamu.edu>

“An Aggie does not lie, cheat, or steal, or tolerate those who do.”