



**The University of Texas at El Paso**

**Department of Electrical and Computer Engineering**

**EE 4395/5390 – Special Topics: Power System Analysis II**

**Spring 2023**

### **Course Description**

This course is a continuation of Power System Analysis I and covers power flows, symmetrical faults, symmetrical components, and unsymmetrical faults.

### **Course Information**

**Class Time:** TR 6:00-7:20 pm, January 17 – May 04, 2023

**Location:** Quinn Hall 202

### **Instructor Information**

**Instructor:** Yuanrui Sang, Ph.D.

**Email:** [ysang@utep.edu](mailto:ysang@utep.edu)

**Phone:** (915) 747-6632

**Office:** Engineering Building, Room A-334

**Office Hours:** 5:00-6:00 PM on Tuesdays

### **Course Materials**

**Textbook:** Power System Analysis and Design, 7<sup>th</sup> Edition.

**Authors:** J. Duncan Glover, Mulukutla S. Sarma, Thomas Overbye, Adam Birchfield.

**Publisher:** Cengage Learning, Inc.

### **Course Outcomes**

The goal of this course is to provide students with a complete overview of power flows, symmetrical faults, symmetrical components, and unsymmetrical faults. Students completing this course will have:

- Ability to evaluate the power flows in power systems.
- Ability to analyze symmetrical faults.
- Ability to analyze symmetrical components.
- Ability to analyze unsymmetrical faults.



## **Topic Covered in this Course (Tentative)**

1. Power flows
2. Symmetrical faults
3. Symmetrical components
4. Unsymmetrical faults

## **Grading Policy**

90 – 100	A
80 – 89	B
70 – 79	C
60 – 69	D
< 60	F

For EE 4395:

Homework: 35% in total. If for some reason you cannot finish the homework on the due date, the grade will be reduced proportionately to the days passed after the due date (10% off for each day passed).

Two exams: 20% each.

One course project: 15%.

Attendance: 10%.

For EE 5390:

Homework: 30% in total. If for some reason you cannot finish the homework on the due date, the grade will be reduced proportionately to the days passed after the due date (10% off for each day passed).

Two exams: 20% each.

Two course projects: 10% each.

Attendance: 10%.

## **Policy on Scholastic Dishonesty**

Students are expected to be above reproach in all scholastic activities. Students who engage in scholastic dishonesty are subject to disciplinary penalties, including the possibility of failure in the course and dismissal from the university. Scholastic dishonesty includes but is not limited to reproducing test or quiz materials from memory, copy/paste, cheating, plagiarism, collusion, the submission for credit or any work or materials that are attributable in whole or in part to another person, taking an examination for another person, and any act designed to give unfair advantage to a student or the attempt to commit such acts. Regents' Rules and Regulations, Part One, Chapter VI, Section 3, Subsection 3.2, Subdivision 3.22. See detailed procedure in the Handbook of Operating Procedures (HOP) available in the Office of the Dean of Students.



### **Policy on Accommodations**

If you have a condition, which may affect your ability to perform successfully in this course, you are encouraged to discuss this in confidence with the instructor and/or the director of the Disabled Student Services. Written guidelines r/t accommodations from The Center for Accommodations and Support Services (CASS) must be submitted to the course manager in two weeks after the start of the course. If you have a disability and need classroom accommodations, please contact CASS at 747-5148, or by email to [cass@utep.edu](mailto:cass@utep.edu), or visit their office located in UTEP Union East, Room 106. For additional information, please visit the CASS website at [www.sa.utep.edu/cass](http://www.sa.utep.edu/cass). *CASS' Staff are the only individuals who can validate and if need be, authorize accommodations for students with disabilities.*

### **Copyright Notice**

Copyright law protects many of the materials that are posted within this course. These materials are only for the use of students enrolled in this course and only for the purpose of this course. They may not be further retained or disseminated. If you would like to share any course materials outside this course, please email me and obtain a written approval before doing so.