ELEG 5503 – Design of Advanced Power Distribution Systems
Summer 2017

TIME: **N/A** VENUE: **Online**

TEXTBOOK: **ELECTRIC POWER DISTRIBUTION SYSTEM ENGINEERING, Turan Gonen, Third Edition, CRC Press**

INSTRUCTOR: **Dr. J. C. BALDA (3217 Bell Engineering Center, Tel: (479) 575-3008, e-mail: jbalda@uark.edu)**

OFFICE HOURS: **By appointment.**

1.0 COURSE OUTLINE

1.1 Chapter 4: Design of Subtransmission Lines and Distribution Substations (1 week)
1.2 Chapter 5: Design Considerations of Primary Systems (0.5 week)
1.3 Chapter 10: Distribution System Protection (2 weeks)
1.4 Chapter 3: Application of Distribution Transformers (2 weeks)
1.5 Chapter 9: Distribution System Voltage Regulation (1 week)
1.6 Chapter 8: Applications of Capacitors to Distribution Systems (1 week)
1.7 Chapter 13: Distributed Generation and Renewable Energy (0.5 week)

2.0 GRADING POLICY

Tests	75%
Homework Problems	25%

The first test covers Chapters 4 and 5, the second test Chapter 10, the third test Chapter 3, and finally, the fourth test covers Chapters 9, 8 and 13.

Grading system: $A \geq 90$, $90 > B \geq 80$; $80 > C \geq 70$; $70 > D \geq 50$

Cutting a test will result in a zero grade; i.e., THERE IS NO MAKE UP TEST UNDER ANY CIRCUMSTANCE. A formula sheet with only numbered equations from the textbook is allowed in each test. Drawings, equivalent circuits, solved problems ARE NOT ALLOWED on the formula sheet; failure to satisfy this will be considered academic dishonesty. As written in the UA Academic Integrity website, "As a core part of its mission, the University of Arkansas provides students with the opportunity to further their educational goals through programs of study and research in an environment that promotes freedom of inquiry and academic responsibility. Accomplishing this mission is only possible when intellectual honesty and individual integrity prevail. Each University of Arkansas student is required to be familiar with and abide by the University's 'Academic Integrity Policy' which may be found at "provost.uark.edu/457.php". A short video is at http://www.youtube.com/watch?v=SQW_IoOhjvo&feature=youtu.be

Students with questions about how these policies apply to a particular course or assignment should immediately contact their instructor."

Please, refer to www.ieee.org/about/whatis/code.html for the IEEE Code of Ethics.

Tentative Schedule for Tests

Test 1 should be taken between June 20 and 21, 2017
Test 2 should be taken between June 29 and 30, 2017
Test 3 should be taken between July 12 and 13, 2017
Test 3 should be taken on July 20, 2017

Homework Assignment Deadlines

Homework assignment on "AC Circuits": June 1, 2017
Homework assignment on "Distribution Substations": June 6, 2017
Homework assignment on "Design of a Primary Feeder": June 16, 2017

Homework assignment on “Fuse to Fuse Coordination”: June 22, 2017
Homework assignment on “Recloser-Fuse Coordination”: June 26, 2017
Homework Assignment on “Three-Phase Transformers”: July 6, 2017
Homework assignment on “Voltage Regulation”: July 14, 2017

Proctor

You need to identify a proctor for proctoring your tests. The proctor cannot be a family member or a friend. It can be your manager or supervisor, someone in human resources, or a testing center available at many community colleges. The role of the proctor is to provide you with a quiet room, administer the test, collect your submission with the formula sheet, and scan and email them to me. Tests will be closed book, closed notes, you can only have a formula sheet with equations from the textbook or the slides. No solved problems, no graphs.

3.0 GENERAL

Students are advised to contact Dr. Balda to reinforce any concept that may not be clear independently of their grades.

Any of the above rules may be changed at any time if the circumstances warrant doing so.