Prerequisites: ELEC 105, ELEC 201 (with a grade of C or better), MATH 132 or permission of the department head to allow it as a corequisite.

Course Description: Basic electrical elements and sources, Ohm’s and Kirchhoff’s Laws, techniques of DC circuit analysis, sinusoidal analysis and phasors, power, three-phase circuits, and transient response of simple circuits, uses SPICE to aid circuit analysis.

Instructor: Professor Siripong Potisuk
Office: Grimsley Hall Rm. 312
Phone: (843) 953-4895
E-mail: siripong.potisuk@citadel.edu
Office hours: 1300 – 1400 & 1600 – 1700 Monday
0900 – 1000 & 1500 – 1700 Wednesday
1300 – 1500 Tuesday & Friday
Others by appointment

Class schedule: Three Credit Hours
1000 – 1050, Monday, Wednesday, & Friday
Room: GRIMS 305


Course Objective: This course is a continuation of ELEC 201. It is aimed at the study of techniques used to describe and analyze AC circuits, covering such topics as phasor analysis, characterization of AC circuits based upon impedance, admittance, and transfer function parameters, and computation of sinusoidal steady state AC responses. Both single and three-phase AC power circuits will be discussed. In addition, students will study properties and practical uses of resonant circuits and transformers, input-output characterization of a circuit as a two-port network, and passive filter design. Use of Laplace Transform techniques to analyze linear circuits with and without initial conditions will also be introduced.
Grading Policy:

Homework 20%
Three In-class Tests 50%
Final Exam (comprehensive) 30%

The following grading system will be adopted as a guideline for assigning a letter grade. This guideline is subject to change depending upon the overall class performance as well.

A: 86 – 100%
B: 76 – 85.9%
C: 66 – 75.9%
D: 56 – 65.9%
F: 0 – 55.9%

Homework:

1) Homework will be assigned on a weekly basis and must be turned in at the beginning of class on the due date. Only neat and legible work will be accepted. Thus, it is recommended that all homework be written in pencil and only on one side of engineering paper. Late homework will incur a 50% penalty and be accepted no later than one week from the due date.

2) Homework will be graded for effort and correctness. Solutions will be distributed in class or uploaded to the course webpage (http://faculty.citadel.edu/potisuk) one week after the due date. It is imperative that student periodically check the course webpage for updates and important news pertaining to the class.

3) While it is permissible and recommended to rely on fellow students for assistance, it is not permissible to copy any portion of another student's work and pass it off as your own. CHEATING AND/OR PLAGIARISM IN ANY FORM WILL BE FULLY PROSECUTED UNDER THE CITADEL HONOR CODE.

Attendance:

Class attendance is mandatory. Student is required to notify the instructor, if possible, in advance should it be necessary to miss a class for any reason and will be responsible for any material missed. Absences in excess of 20% of the class meetings will result in a failing grade for the course. Unexcused absence from a test or a final exam will result in a zero for that test or exam. Excused absence will be granted under extreme circumstances only (guard duty is not considered an extreme circumstance).

Special Accommodations:

Any students requiring special accommodations for learning disabilities should provide the instructor with verifiable written documentation of their needs as early in the semester as possible (i.e., within the first two weeks of the semester). This will ensure that the students have ample opportunity to succeed in their academic pursuits.
Important Dates:

- Monday, January 18th: Martin Luther King Day (No classes)
- Tuesday, January 19th: SCCC Drop/Add ends
- Friday, February 12th: Test I
- Wednesday, March 17th: Last Day to Withdraw With Grade of “W” for SCCC
- Friday, March 19th: Test II
- Friday, April 2nd: Spring Break Begins
- Sunday, April 11th: Spring Break Ends
- Friday, April 23rd: Test III
- Monday, April 26th: Last Day of Class
- Friday, April 30th: SCCC Final Examination (1300 – 1600 hrs, GRIMS 305)

Lesson Plan:

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<td>Circuit Analysis Using the Laplace Transform</td>
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