



THE CITADEL

ELECTRICAL & COMPUTER ENGINEERING

ELEC 308-91, Elements of Electrical Engineering
Course Syllabus for Summer 2015
TR 5:15pm – 8:00pm, Room: Grimsley 305

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- Instructor:** Dr. Jason S. Skinner, Grimsley 310, Phone: 843-953-3352
Email - jason.skinner@citadel.edu
- Office Hours:** TR 3pm – 5pm, and by appointment
- Textbooks:** *Electricity Demystified*, 2nd Edition, Stan Gibilisco
- Prerequisites:** MATH 131 – Analytic Geometry and Calculus I
- Objectives:** This course provides fundamental education in electric circuit analysis techniques to non-electrical engineering majors. Students should be able to do the following upon completion of this course:
1. Understand the fundamental concepts of voltage, current, power and energy
 2. Understand the voltage-current relationships for linear circuit elements
 3. Be able to utilize a variety of analysis techniques to solve a wide array of dc and ac electric circuits
 4. Understand AC power, power factor and power factor correction
 5. Understand multi-phase circuits
 6. Understand electrical safety
- Description:** Fundamental electrical concepts and units; basic laws of electrical circuits; equivalent circuits; DC and steady-state AC circuit analysis; and effective current, average power, and three-phase power.
- Websites:** Professor - <http://ece.citadel.edu/skinner>
Course - <http://ece.citadel.edu/courses>
The course website will be used to post course information (such as this syllabus), lecture slides and notes, homework assignments, corrections and answers to questions about assignments, and individual grades.

Important Dates:

Thursday, July 2 Last Day to Add/Drop a Course
Wednesday, July 22 Last Day to Withdraw with Grade of “W”
Thursday, August 13 Final Exam

Course Outline:

Reading	Topics	Date
Chapter 1	Introduction, Circuit Diagrams	June 30
Chapter 2	Charge, Current, Voltage, and Resistance	July 2
Chapter 3	Ohms Law, Power, and Energy	July 7
Chapter 4	Simple DC Circuits	July 9
Chapter 5	Cells and Batteries	July 14
Chapters 1-5	Midterm Exam	July 16
Chapter 6	Alternating Current	July 21
Chapter 7	Electricity in the Home	July 23
Chapter 8	Electrical Power Supplies	July 28
Chapter 9	Wire and Cable	July 30
Chapter 10	Magnetism	August 4
Chapter 11	Electromagnetic Effects	August 6
Chapter 12	Practical Magnetism	August 11
Chapters 1-12	Final Exam	August 13

Attendance: Attendance is mandatory. Unless circumstances preclude it, it is your responsibility to notify Dr. Skinner of any schedule conflicts or excused absences that will result in your missing class. It is college policy that a grade of F may be awarded to a student if that student misses more than 20% of the course meetings (excused or unexcused). For this course, **3 classes** constitute 20% of the class meetings.

Classroom Decorum: No food or drink is permitted in the classrooms of this building. Proper attire is encouraged, and ECE department policy prohibits hats, cutoffs, shorts, tank tops, and feet without socks in class.

Special Needs Students currently documented or anticipate being documented as Learning Disabled (LD), as having Attention Deficit Disorder (ADD), or with another condition for which you might need special accommodation during the semester must provide written documentation of the condition and of the accommodation needed to me within two weeks of the semester start. You may then choose, by notifying Dr. Skinner before the start of each exam or assignment, whether you will need any accommodation. Notification after the start of an exam or last minute notification on an assignment will not be accepted. Please Note: To request academic accommodations (for example, a note taker), students must also register with Academic Support/Special Services, 953-1820, located in Thompson Hall. It is the campus office responsible for reviewing documentation provided by students requesting academic accommodations, and for accommodations planning in cooperation with students and instructors, as needed and consistent with course requirements.

Homework: Homework will be assigned on each Thursday. Homework is for you to practice to do circuits problems and will not be collected or graded. **You will not succeed in this class if you do not work the assigned problems!** Numerical answers to all homework problems will be provided at the beginning of class every Tuesday.

Tests: There will be four in-class quizzes, one midterm exam, and one final exam. **Collaboration is not allowed on quizzes or exams.** The in-class quizzes will be administered during the first 30 minutes of each Thursday class period from July 9 to August 6, except for July 16. The final exam will be comprehensive. Assigned quizzes and exams are required. If you know you will miss an assigned quiz or exam, you must let Dr. Skinner know as soon as possible so a make-up time can be arranged. Make-up quizzes or exams will only be given for those students that have made a **reasonable** attempt to contact Dr. Skinner.

Calculator Policy: For all quizzes and exams, only NCEES approved calculators may be used. These are the calculators that students are permitted to bring to the FE exam. The list of approved calculators can be found on the NCEES website (http://www.ncees.org/Exams/Exam-day_policies/Calculator_policy.php).

Grading: All quizzes and exams are scheduled well in advance. Your final grade in the course will be determined as follows:

4 In-Class Quizzes	50%
Midterm	20%
Final Exam	30%

The grading scale used in this course is:
A = 90 – 100, B = 80 – 89, C = 70 – 79, D = 60 – 69, F = 59 or below.

Cheating and Collaborative Work According to The Citadel’s policies for the preparation of work performed outside the classroom:

All papers, reports, senior essays, theses, or other written work performed outside the classroom for which a grade is received will be the individual’s work and is subject to the limitations imposed by the definition of plagiarism.

According to Webster’s New International Dictionary, 3rd Edition: to plagiarize is defined as ”to steal and pass off as one’s own the ideas or words of another” or to ”present as new and original an idea or product derived from an existing source.”

CHEATING IN ANY FORM WILL BE FULLY PROSECUTED.