
Course Syllabus: EET 1025C – Fundamentals of AC Circuits – CRN 26737 (3 Credits hours)

Catalog Course Description Fundamental course in AC and transient-response networks designed to prepare students for advanced courses. Classroom lectures supplemented with laboratory projects to provide student with practical hands-on experience in use of electronic test equipment and in proper techniques for data measurements/interpretation, trouble-shooting and orderly documentation of test results and conclusions. (Special Fee: \$67.00)

Course Learning Outcomes – Students will learn:

- The sine wave – voltage and current values angular relationships, and nonsinusoidal forms
- Phasors, the complex numbers, and their mathematical operations
- Capacitors and their analysis in DC and AC circuits
- Inductors and their analysis in DC and AC circuits
- Analyze RC, RL, and RLC circuits and their resonance
- An overall understanding of different types of filters

Prerequisite: EET 1015C

Class Time and Location:

Lecture: Wednesday 1:00 – 3:00 PM, Bldg. 11 – Room 244

Textbook: *Principles of Electric Circuits*, Conventional Current Version, Floyd, 9th Ed.

Lab Manual: *Fundamentals of DC & AC Circuits Laboratory Manual*, Hedayat, Nasser

Professor's Information:

Instructor: Prof. Arif Rafay

Office: West Campus, Bldg. 11 – Room 253

Phones: 407.443.1023 (cell)

Email: arafay@valenciacollege.edu

Office Hours: After class (if you prefer) and by email

Student and Performance Assessment:

Laboratory Experiments ¹	200	Grade Scales
Homework	100	A 90 – 100 %
Two Exams	400	B 80 – < 90 %
Final Exam ²	100	C 70 – < 80 %
.....		D 60 – < 70 %
.....		F < 60 %

¹ No Late work will be accepted.

² **Final Exam will be comprehensive**

DISCLAIMER: Changes in this syllabus may be made at anytime at the instructor's discretion.

¹ No Late work will be accepted. Homework is collected at the beginning of class.

² No make-up quizzes or exams will be given.

³ **Final Exam will be comprehensive**

Important Dates:

Monday, January 16 MLK Birthday – College is closed.

Wed, Jan 20 – Fri Jan 29 No Show Reporting Period

Mon. – Sun., Mar. 13 – 17 Spring Break

Friday, March 31, 2017 Withdrawal deadline for “W” Grade

Mon. – Sun., Apr. 24 – Apr 28 Final Exams Week

Tuesday, May 2 Final Grades Viewable in ATLAS

Tentative Course Outline for EET 1025C – CRN 26737; Spring 2017					
Week - Date Wed / Thurs		Chapter	Material To Be Covered	Lab Assignment(s)	Due Material
Wee k 1	Wed 1/11	11	Syllabus and Course Overview Introduction to Alternating Current and Voltage		None
Wee k 2	Wed 1/18	11 12	Introduction to Alternating Current and Voltage		None
Wee k 3	Wed 1/25		Capacitors		
Wee k 4	Wed 2/01	12	<u>Inductors</u>		HW – Ch. 11

Week 5	Wed 2/08	13 15	RC Circuits		HW – Ch. 12
Week 6	Wed 2/15	15	RL Circuits		
Week 7	Wed 2/25	16	Exam 1		HW – Ch. 15
Week 8			RLC Circuits and Resonance		
Week 9	Wed 3/01	17	RLC Circuits and Resonance		HW – Ch. 16
Week 10	Wed 3/08	18	Passive Filters		
Week 11	Wed 3/15		Spring Break		
Week 11	Wed 3/22	18	Passive Filters		
Week 12	3/29		Exam 2		
Week 13	4/05	19	Circuit Theorems		
Week 14	4/12	19	Circuit Theorems		
Week 15	4/19	19	Circuit Theorems		
Week 16	4/26		Final Exam		

Lab (Assignments) Requirements

- ⑧ A written lab report will accompany every exercise done in this course. All Labs will be due the week following the start of the lab unless decided otherwise by the Professor. It is the student's responsibility that all labs are handed in by the due date.
- ⑧ Every report should be typed. **NO** hand written reports (including hand-drawn tables within the body of the report or scanned materials) will be accepted.
- ⑧ All labs must be done **during assigned lab** time. Labs will only be accepted if performed during the assigned class time unless prior approval by the instructor is granted.
- ⑧ **Pre-Lab (MultiSIM)** reports must be prepared and presented before the same day as the lab is being performed. Remember that grades are assigned for this pre-lab report.
- ⑧ **Lab Approval** – All lab exercises must be approved and signed by the instructor or lab personnel. Labs without signatures will not be accepted.
- ⑧ Must be ready to perform the required laboratory exercises upon arrival to the lab.
- ⑧ [For Further Lab Report instructions and guidelines visit course Blackboard webpage.](#)

Departmental Rules and Requirements

- ❑ **Absolutely no food or drinks** are allowed in the classrooms or laboratories.
- ❑ All Assignments are due at the beginning of class period.
- ❑ It is highly recommended to visit the EET Open Lab (Bldg. 9, Room 211) for assistance and practice.
- ❑ **Exams:**
 - Are given at the beginning of the class.
 - Work must be properly and adequately organized and shown to earn credit.
 - No make-up quizzes or exams are permitted unless prior arrangement with instructor has been made and approved.
- ❑ There are no dropped exam scores.
- ❑ Final exam is required. Failing to take the final exam will result in grade F.
- ❑ You are expected to be in class **on time**. You are responsible for any information and/or assignments given during class, whether you are present or not.

- ❑ **More than two (2) unexcused absences could result in withdrawal from the course or grade F.**
- ❑ It is your responsibility to withdraw from the course. Failure to do so may result in grade F.
- ❑ **You are encouraged to ask relevant questions during class.**
- ❑ If you wish to discuss your grades please visit my office. ***Valencia prohibits disclosure of grades over the phone or e-mail except through your Atlas account.***
- ❑ No audio or video recording allowed in class unless prior permission is granted from professor and every other student in the class.
- ❑ **Cheating:** Using any human, written, electronic, or other resource in any manner not explicitly authorized by the instructor will result in a grade of zero on the exam(s) or assignment(s) involved. Any student caught cheating; the instructor has the right to withdraw the student from the class and recommend expulsion from the program.
- ❑ **Disruptive Behavior:** Any student engaging in disruptive behavior will be advised on the first offense and will be **dropped** from the course on the second offense.

Students are strongly encouraged to read the Valencia policy Manual *Student Code of Conduct* and *Computer Acceptable Usage* and *Student Core Competencies* found at the following links:

<http://valenciacollege.edu/generalcounsel/policy/ValenciaCollegePolicy.cfm?policyID=180>,

<http://valenciacollege.edu/competencies>

Students with disabilities who qualify for academic accommodations must provide a letter from the Office for Students with Disabilities (OSD) and discuss specific needs with the professor, preferably during the first two weeks of class. The Office for Students with Disabilities determines accommodations based on appropriate documentation of disabilities (West Campus SSB 102, ext. 1523).

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