
Course Syllabus: EET 1015C – Fundamentals of DC Circuits – CRN 13197 (3 Credits hours)

Professor's Information:

Instructor: Prof. Arif Rafay
Office: West Campus, Bldg. 11 – Room 253
Phones: 407-443-1023 (Cell)
Email: arafay@

Office Hours:

Day	Time	Location
Monday	12:00 noon to 12:50pm	Room 11 - 253
Tuesday	1:00 pm to 5:00 pm	Room 11 - 253
Wednesday	11:00 am to 12:50pm	Room 11 - 253
Thursday	11:00 am to 12:50pm	Room 11 - 253
Friday	8:00 am to 12:00 noon	Virtual(email, phone)

Textbook: *Principles of Electric Circuits*, Conventional Current Version, Floyd, 9th Ed.
ISBN: 9780135073094, Publisher: Pearson.

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

Prerequisite: MTB 1329C and EET 1214C

Class Time and Location:

Lecture: Monday, 1:00 – 4:30 PM, Bldg. 11 – Room 244

Catalog Course Description: Fundamental course in DC electric circuits. Prepares student for EET 1025C and subsequent advanced courses. Classroom lectures supplemented with laboratory projects to provide student with 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 – This course requires the student to demonstrate the following:

- Understand the basic units, power of ten notations, scientific notation, engineering notation, metric prefixes, and unit conversions
- Understand basic concept of electrical charge, voltage, current, resistance, and Ohm's law
- Understand power, energy, resistors power ratings, voltage drop in a resistance
- Study resistors in series, KVL, Ohm's Law for a series circuit, voltage dividers, power in a series circuit, circuit ground, and troubleshooting series circuits
- Study resistors in parallel, KCL, Ohm's Law for a parallel circuit, circuit dividers, power, and troubleshooting parallel circuits
- Identify and analyze Series-Parallel circuits, Ladder networks, as well as troubleshooting
- Study source transformation, the Superposition theorem, Thevenin & Norton theorems, Maximum Power theorem, and Delta-Wye conversions
- Study the Branch, Mesh, and Node Analysis using the Substitution method and the Determinant Method

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

Student and Performance Assessment:

Laboratory Experiments ¹	300	Grade Scales
Homework	100	A 90 – 100 %
Two Exams	400	B 80 – < 90 %
Final Exam ²	200	C 70 – < 80 %
.....		D 60 – < 70 %
.....		F < 60 %

¹ No Late work will be accepted.

² Final Exam will be **comprehensive**

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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.

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 1015C – CRN 13197; Spring, 2017

Week - Tuesday	Chapter	Material To Be Covered	Lab Assignment(s)	Due Material
Week 1 01/09	1 2	Syllabus and Course Overview Quantities and Units Voltage, current, and Resistance		
01/16		MLK Day (No Class)		
Week 3 01/23	2	Voltage, current, and Resistance – Continued	Conduct Experiments 1	
Week 4 01/30	3 4	Ohm’s Law Energy and Power	Conduct Experiment 2	Lab Report: Exp. 1
Week 5 02/06	5	Series Circuits Experiment 3		Lab Report: Exp. 2
Week 6 02/13		Exam 1(Chapters 1, 2, 3, 4, and 5)	Lab Exam Experiments 1, 2, 3	Lab Report 3
Week 7 02/20	6	Parallel Circuits	Conduct Experiment 4	
Week 8 02/27	6	Parallel Circuits – <i>Continued...</i>		Lab Report: Exp. 4
Week 9 03/06	7	Series – Parallel Circuits		
Week 9 03/06	7	Series – Parallel Circuits – <i>Continued...</i>	Conduct Experiments 5	
Week 10 03/13		Spring Break		Experiments 5
Week 11 03/20		Exam 2(Chapters 6, 7) Lab Exam(Experiments 4, 5)		
Week 12	8	Circuit Theorems & Conversions Experiment 6		

03/27		Source Conversion		
Week 13 04/03	8	Circuit Theorems & Conversions –	Experiment 7	Experiment 6
Week 14 04/10	8	Circuit Theorems & Conversions – Continued... Experiment 8		Experiment 7
Week 14 04/10	8	Circuit Theorems & Conversions – Maximum Power Transfer Theorem	Conduct Experiment 9	Lab Report: Exp. 8
Week 15 04/17	9	Branch, Loop, and Node Analyses – Branch & Loop Analysis Experiment 10		Lab Report: Exp. 9
Week 16 04/24		Final Exam		Experiment 10 Experiment 9

Lab (Assignments) Requirements

- 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.
- Every report should be typed. **NO hand written reports will be accepted** (hand-drawn tables within the body of the report or scanned materials are not accepted). Microsoft Word or Excel can be used to create tables, diagrams, and graphs.
- 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.
- **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.
- **Lab Approval** – All lab exercises must be approved and signed by the instructor or lab personnel. Labs without signatures will not be accepted.
- Must be ready to perform the required laboratory exercises upon arrival to the lab.

- [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.
- ❑ **Quizzes & 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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