Department of Electronics Engineering Technology
Division of Engineering, Computer Programming, & Technology
West Campus Building 9, Room 140 (407) 582-1902/1903
http://valenciacollege.edu/west/engineering/

Fall 2014

Course Syllabus: EET 1015C – Fundamentals of DC Circuits – CRN 14823 (3 Credits hours)

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: $64.00)

Course Learning Outcomes – Students will:

- Study the basic units, power of ten notation, scientific notation, engineering notation, metric prefixes, and unit conversions
- Study 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

Prerequisite: **MTB 1329C** and **EET 1214C**

Class Time and Location: **Lecture:** **Tuesday, 5:30 – 8:45 PM, Bldg. 11 – Room 237**
Laboratory: **Thursday, 5:30 – 7:30 PM, Bldg. 9 – Room 210**

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. David Marchetti
Office: West Campus, Bldg. 9 – Room 140
Phones: 407-367-8267 (Cell), TBD (Office)
Email: 1dpmarchetti@gmail.com
Office Hours: After Class and by Email

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

Student Performance Assessment:

Laboratory Experiments	**20%**
Laboratory Reports (*See Lab Format Guidelines*)	**10%**
Pre-Labs (MultiSIM)	**5%**
Homework[1]	**10%**
Quizzes[2]	**10%**
Midterm Exam[2]	**15%**
Final Exam[3] (Theory [20%] & Lab Final [10%])	**30%**

Grade Scales

A	90 – 100 %
B	80 – 89.99 %
C	70 – 79.99 %
D	60 – 69.99 %
F	< 59.99 %

[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, Sept. 1	Labor Day – **College is closed**.
Friday, Oct. 3	**Withdrawal deadline for "W" Grade**
Thursday, Oct. 9	College Night **– No Classes** (*West, East, & WP Campuses*)
Tuesday, Oct. 14	**Final Exam – *Theory***
Thursday, Oct. 16	**Final Exam – *MultiSIM/Bench***
Monday, Dec. 15	Final Grades Viewable in Atlas

Homework Assignments:

CHAPTER	CHPATER PROBLEMS
1	1, 3, 7, 15, 17
2	23, 26, 32, 37, 39
3	5, 7, 10, 17, 26, 30, 32
4	3, 8, 9, 16, 21, 24, 27, 30, 33, 38
5	5, 12, 14, 15, 18, 24, 29, 32, 34, 40
6	8, 10, 11, 20, 21, 26, 28, 29
7	13, 17, 21, 30, 32, 42
8	2, 8, 13, 16, 20, 22, 31
9	13, 19, 22, 25, 29, 30, 32

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 (including hand-drawn tables within the body of the report or scanned materials) will be accepted.
- 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. 11, Room 246)** 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).

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

Tentative Course Outline for EET 1015C – CRN 14823; Fall 2014					
Week - Date Tues / Thurs		**Chapter**	**Material To Be Covered**	**Lab Assignment(s)**	**Due Material**
Week 1	T 8/26	**1** **2** **3**	Syllabus and Course Overview Quantities and Units Voltage, current, and Resistance Ohm's Law		
	TH 8/28	**3** **4**	Ohm's Law – *Continued…* Energy and Power		
Week 2	T 9/2	**5**	Series Circuits		HW – Ch. 1 – 4
	TH 9/4	***Quiz 1 – Chapter 1 - 4***		Conduct Experiments 1 & 2	Pre-Lab: Exp. 1& 2
Week 3	T 9/9	**6**	Parallel Circuits		HW – Ch. 5
	TH 9/11	***Quiz 2 – Chapter 5 - 6***		Conduct Experiment 3	Pre-Lab: Exp. 3 Lab Report: Exp. 1 & 2
Week 4	T 9/16	**MIDTERM EXAM Chapters 1 – 6**			HW – Ch. 6
		7	Series – Parallel Circuits		
	TH 9/18			Conduct Experiments 4 & 5	Pre-Lab: Exp. 4 & 5 Lab Report: Exp. 3
Week 5	T 9/23	**7** **8**	Series – Parallel Circuits – *Continued…* Circuit Theorems & Conversions		
	TH 9/25	***Quiz 3 – Chapter 7***		Conduct Experiment 6	Pre-Lab: Exp. 6 Lab Report: Exp. 4 & 5
Week 6	T 9/30	**8** **9**	Circuit Theorems & Conversions – *Continued…* Branch, Loop, and Node Analyses		HW – Ch. 7
	TH 10/2	***Quiz 4 – Chapter 8***		Conduct Experiment 7	Pre-Lab: Exp. 7 Lab Report: Exp. 6
Week 7	T 10/7	**9**	Branch, Loop, and Node Analyses – *Continued…*		HW – Ch. 8
	TH 10/9	**College Night – No Classes** (*West, East, & WP Campuses*)			
Week 8	T 10/14	**Final Exam – *Comprehensive* Theory (Tuesday, Oct. 14)**			HW – Ch. 9

	TH 10/16	**Lab Final Exam – *Comprehensive*** **MultiSIM/Bench (Thursday, Oct. 16)**