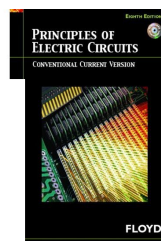
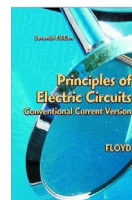


**HUDSON COUNTY COMMUNITY COLLEGE**  
**Science, Engineering, Technology & Mathematics**  
**Electronics Engineering Technology Program**



**Course Title:** EET 111-01, Electric Circuits I

**Credits:** 4

**Schedule:**

**Faculty:**

**Office Hours:**

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This Kit includes a detailed Syllabus for the **Electric Circuits I** course as well as the schedule of examinations and laboratory assignments for the Semester.

**Text:** Principle of Electric Circuits Ninth Edition; Author “Floyd”, Prentice Hall  
ISBN-13: **978-0135073094**

**“An earlier edition of the textbook may be used as well”**

**Course Objectives:** *The Course covers the concepts of Ohm’s Law, Kirchhoff’s Laws, and D.C. circuits such as series circuits, parallel circuits, and series-parallel circuits. The student is introduced to network Theorem’s such as Thevenin’s Theorem, Norton’s Theorem, and the superposition Theorem with application to DC circuits. The study of capacitors and inductors serves as an introduction to the sinusoidal system and the behavior of R, L and C in a sinusoidal system. The laboratory component includes the use of all test instruments in experiments dealing with Ohm’s Law, series circuits, parallel circuits, and series-parallel circuits, followed by a study of internal resistance and loading. The final experiment supplies facility in the application of the oscilloscope.*

**Attendance Policy:** Attendance is obligatory for all students. Students are responsible for the material covered in the class session for which they have missed. Three or more absence may result in failure of the course. Students are expected to arrive to class on time.

**Homework:** Homework will be assigned regularly and discussed in the class in the following session.

**Exams:** There will be four scheduled quizzes, midterm a comprehensive Final Exam.

**Lab Work:** There will be a series of laboratory experiments to be performed on a timely basis. A technical laboratory report is required for each of the experiments.

**Grading Policy:** The final grade on the course will based on the following components Quizzes 25%, Midterm Exam 10%, Lab work 15%, Lab reports 20%, Final Exam 15%, Homework 10%, and Class Participation 5%

**Grading Scale:** 92-100 = A, 88-91 = A-, 85-87 = B+, 81-84 = B, 78-80 = B-, 74-77 = C+, 64-73 = C, 57-63 = D, 0-56 = F.

**Make Up Exams:** In case the student is absent for a test due an emergency. It is the student’s responsibility to contact me as soon he/she returns to school and supply me with a legitimate excuse.

<b>Week</b>	<b>Reading Assignments</b>	<b>Chapter &amp; Weekly Homework</b>
1	<b>Components, Quantities, and Units</b> <ul style="list-style-type: none"> <li>• Electrical Components and Measuring Instruments</li> <li>• Electrical &amp; Magnetic Units</li> <li>• Scientific, Engineering Notations</li> <li>• Metric Prefixes &amp; Unit Conversions</li> </ul>	<b>Chapter 1</b> HW: # 7, 11, 15, 17, 19, and 21
2	<b>Voltage, Current, and Resistance</b> <ul style="list-style-type: none"> <li>• Atomic Structure &amp; Electrical Charge</li> <li>• Basic Circuits Measurements &amp; Electrical Safety</li> </ul>	<b>Chapter 2</b> HW: # 19, 20, 21, 23, and 28
3	<b>Quiz #1</b> <b>Ohm's Law</b> <ul style="list-style-type: none"> <li>• Calculating Current, Voltage, &amp; Resistance</li> <li>• Relationship of Current, Voltage &amp; Resistance</li> </ul>	<b>Chapter 3</b> HW: # 5, 6, 7, 18, 21, 30, 34, and 37
4	<b>Test #1</b> <b>Power and Energy</b> <ul style="list-style-type: none"> <li>• Power in Electric Circuit &amp; Resistor Power Ratings</li> <li>• Energy Conversion &amp; Voltage Drop in Resistance</li> </ul>	<b>Chapter 4</b> HW: # 5, 9, 10, 13, 15, 19, 23, 25 and 27
5	<b>Series Circuits</b> <ul style="list-style-type: none"> <li>• Current in Series Circuits</li> <li>• Total Series Resistance</li> <li>• Kirchhoff's Voltage Law</li> <li>• Voltage Dividers</li> <li>• Power in Series Circuits</li> <li>• Circuit Ground</li> </ul>	<b>Chapter 5</b> HW: # 7, 10, 13, 15, 21, 24, 26, 34, and 36
6	<b>Quiz #2</b> <b>Parallel Circuits</b> <ul style="list-style-type: none"> <li>• Voltage in Parallel Circuits</li> <li>• Total Parallel Resistance</li> <li>• Kirchhoff's Current Law</li> </ul>	<b>Chapter 6</b> HW: # 5, 6, 9, 11, 15 and 17
7	<b>Parallel Circuits</b> <ul style="list-style-type: none"> <li>• Voltage in Series Circuits</li> <li>• Total Parallel Resistance</li> <li>• Kirchhoff's Current Law</li> <li>• Current Dividers</li> <li>• Power in Parallel Circuits</li> </ul>	<b>Chapter 6</b> HW: # 21, 24, 25, 28, 31, 35 and 37
8	<b>Test #2</b> <b>Series –Parallel Circuits</b> <ul style="list-style-type: none"> <li>• Identifying Series-Parallel Relationships</li> </ul>	<b>Chapter 7</b> HW: # 3, 15, and 20
9	<b>Series –Parallel Circuits</b>	<b>Chapter 7</b>

	<ul style="list-style-type: none"> <li>• Analysis of Series-Parallel Resistive Circuits</li> <li>• Voltage Dividers with Resistive Loads</li> <li>• Loading Effect of a Voltmeter</li> </ul>	HW: # 22, 24 and 26
10	<b>Quiz #3</b> <ul style="list-style-type: none"> <li>• The Current Source</li> <li>• Source Conversion</li> </ul>	<b>Chapter 8</b> HW: # 1, 3, 5 and 6
11	<b>Circuit Theorems</b> <ul style="list-style-type: none"> <li>• Superposition Theorem</li> </ul>	<b>Chapter 8</b> HW: # 9, 12, and 15
12	<b>Circuit Theorems</b> <ul style="list-style-type: none"> <li>• Thevenin Theorem</li> </ul>	<b>Chapter 8</b> HW: # 18, 20, 21 and 24
13	<b>Circuit Theorems</b> <ul style="list-style-type: none"> <li>• Maximum Power Transfer Theorem</li> </ul>	<b>Chapter 8</b> HW: # 32, 33, 34 and 35
14	<b>Test #3</b> <b>Introduction to Alternating Current and Voltage</b>	<b>Chapter 11</b> HW: # 1, 7, 9, 11 and 15
15	<b>Final Examination</b>	

Week	Laboratory Assignments	Report	Week Due
1	Laboratory Orientation	No Report	--
2	#1 Identification of Resistive Components	Abridged	3
3	#1 A Resistive Measurement using the VOM #2 Identification of DC Instruments	Abridged No Report	4 --
4	#3 DC Power Source and DC instruments	Abridged	5
5	#4 Ohm's Law	Abridged	6
6	#5 The Series Circuit	Abridged	7
7	#6 The Parallel Circuits	Complete	8
<b>8</b>	<b>Midterm Examination</b>		
9	#7 Internal Resistance and Loading	Abridged	10
10, 11	#8 Series-Parallel Circuits	Complete	12
12, 13	#9 Variable, Non-Linear, and Unilateral Resistance	Complete	14
14	#10 The Oscilloscope, AC Power Source and Meters	No Report	15
<b>15</b>	<b>Groups Oral Presentations of Selected Experiments</b>		

## **Disability Support**

Students with disabilities who believe that they might need accommodations in this class are encouraged to contact the office of Disability Support Services at (201) 360-4157, as soon as possible to better ensure that such accommodations are implemented in a timely fashion. All disabilities must be documented by a qualified professional such as a Physician, Licensed Learning Disabilities Teacher Consultant (LDTC), Psychiatrist, Psychologist, Psychiatric Nurse, Licensed Social Worker or Licensed Professional Counselor, who is qualified to assess the disability that the student claims to have and make recommendations on accommodations for the student. All information provided to the Disability Support Services Program will be confidential between the program, professors involved with the student and individual student.

## **Academic Integrity**

Academic integrity is central to the pursuit of education. For students at HCCC, this means maintaining the highest ethical standards in completing their academic work. In doing so, students *earn* college credits by their honest efforts. When they are awarded a certificate or degree, they have attained a goal representing genuine achievement and can reflect with pride on their accomplishment. This is what gives college education its essential value.

*Violations of the principle of academic integrity include:*

- Cheating on exams.
- Reporting false research data or experimental results.
- Allowing other students to copy one's work to submit to instructors.
- Communicating the contents of an exam to other students who will be taking the same test.
- Submitting the same project in more than one course, without discussing this first with instructors.
- Submitting *plagiarized* work. *Plagiarism* is the use of another writer's words or ideas without properly crediting that person. This unacknowledged use may be from published books or articles, the Internet, or another student's work.

### **Violations of Academic Integrity**

When students act dishonestly in meeting their course requirements, they lower the value of education for all students. Students who violate the college's policy on academic integrity are subject to failing grades on exams or projects, or for the entire course. In some cases, serious or repeated instances of academic integrity violations may warrant further disciplinary action.

### **Violations reported to the Division Dean or Vice President of Student Affairs**

Depending on the severity of the violation(s), the division dean will determine whether further disciplinary action is warranted. The Vice President of Student Affairs assists Academic Affairs in maintaining a high level of academic integrity on the campus. The Dean works with the faculty and division deans to educate students about academic dishonesty and to adjudicate disciplinary cases in which there are suspected violations of College policies. Should a violation(s) of HCCC academic integrity standards warrant a disciplinary hearing with the Vice President of Student affairs, sanctions may include suspension, expulsion, or other measures deemed appropriate.

# Hudson County Community College Classroom Recording Policy

## Student Classroom Recording Policy

- Hudson County Community College prohibits the audio-visual recording, transmission, and distribution of classroom sessions. Classes may only be recorded with the advance written permission of the instructor. The Hudson County Community College classroom recording policy must be listed in all syllabi.
- All classroom recordings can only be used for academic purposes by students enrolled in that class. Recordings may not be shared, reproduced, or uploaded to public websites or other mediums, and these recordings may contain copyrighted material and are prohibited from any form of commercial use.
- All students and guests must be informed that the class may be recorded. Due to issues related to privacy and the possible inhibition of student participation, instructors should be mindful of the effects of permitting classroom recording.
- Instructors should retain electronic or paper copies of their written consent to grant classroom recordings.
- Students must destroy their recordings at the end of the semester.
- Students who are granted permission to record their class by the office of Disability Support Services should inform the instructor beforehand and are subject to the policies outlined in this document.
- Violation of this policy is subject to disciplinary action listed under the code of conduct as included in the Student Handbook.

## Instructor Classroom Recording Policy

- Instructors may record their classes if students are informed in writing in advance that recording will take place. Instructors may distribute their own lectures, but this must be limited to the lecture portion of the class. Recordings of student presentations or activities may be used in the class if the students are notified in advance of the recording. Recordings of student presentations or activities may not be distributed in any way without the advance written consent of the students.
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