### HUDSON COMMUNITY COLLEGE

#### SCIENCE & TECHNOLOGY, ENGINEERING & MATH DIVISION

## EET 214-01 SYLLABUS

# Active Circuit Analysis and Design CREDITS: 4

PREREQUISTE: EET 212- ACTIVE ELECTRONIC DEVICES

TEXT: ELECTRONIC PRINCIPLES, 8th EDITION, Albert Malvino, David Bates, Prentice Hall

ISBN 978-0-07-337388-1

**INSTRUCTOR:** 

Email: Cell:

**Course Objective:** To study the building blocks of a digital system and digital circuitry. The first part focuses on combinational logic. The next, sequential circuits are considered. Finally, a higher-level digital system analysis is presented which addresses issues related to memory design, Arithmetic Operations and Circuits.

<u>Attendance Policy</u>: Attendance is **mandatory** at lectures and laboratory sessions. Material covered in missed classes is the responsibility of the students. If you miss two consecutive classes, you will be referred to the Division Dean. Students get a failing grade (F) in the course after 3 unjustified absences.

**Homework**: Problems related to covered topics are assigned on a regular basis. Selected problems will be discussed in class. Laboratory reports are due the following week after completion of the current experiment.

Grading Policy: There will be three examinations:

#### Midterm 30%

#### Final 30%

The remaining **40%** of the final grade consists of Lab Work, Homework, Quizzes, and class participation

Grading Range	<b>A 90</b> - 100	<b>B+</b> 85 -89
B 80 - 84	C+ 75 - 79	C 70-74
D 60 -69	F 00 -59	

Disability Support Services: Students with disabilities who believe that they might need

accommodations in this class are encouraged to contact the Disability Support Services at 201-360-4157 as soon as possible to better ensure that such assistance can be implemented in a timely fashion. All disabilities must be documented by a qualified professional such as a physician, licensed learning disability teacher (LDTC), psychologist, psychiatric nurse, licensed social worker, or licensed professional counselor, who is qualified to assess the disability that the student claims to have and note recommendations on accommodations for the student. All information provided to the Disability

Support Services Program will be confidential between the programs, professors involved with the student and the individual student.

### Course Outline:

1,2,3*Review: CH1 Intro, Thevenin and Norton Theorems CH7 BJT Biasing CH8 Basic BJT AmplifierChapter 9, p3279-Multistage, CC, and CB Amplifiers9-Multistage Amplifiers9-19-1 Multistage Amplifiers9-2 Two-Stage Feedback9-3 CC Amplifier9-4 Output Impedance9-5 Cascading CE and CC9-6 Darlington Connections9-7 Voltage Regulation9-8 The Common-Base Amplifier9-9 Troubleshooting Multistage Amplifiers9-8 The Common-Base Amplifiers10-1 Multistage AmplifiersChapter 10, p3674,5,610-Power Amplifiers10-2 Two-Stage Feedback10-3 CC Amplifier10-4 Output Impedance10-5 Cascading CE and CC10-6 Darlington Connections10-7 Voltage Regulation10-7 Wortage Regulation10-8 The Common-Base Amplifier10-9 Over Amplifier10-9 Output Impedance10-9 Coscading CE and CC10-6 Darlington Connections10-9 Voltage Regulation10-8 The Common-Base Amplifier10-9 Troubleshooting Multistage Amplifiers7Midterm Review811-1 FETS9,10,11,1211-JFETS ContinuationChapter 11, p41411-1 Basic Ideas11-2 Orain Curves11-3 The Transconductance Curve11-8 Hiel FET Analog Switch11-9 Other JFET Applications11-10 Reading Data Sheets11-10 The JFET Amplifiers11-10 Reading Data Sheets11-11-11-11-11-11-11-11-11-11-11-11-11-	Week	Торіс	Reading Assignment
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	15	Final Exam	

### Laboratory Assignments

Week	Lab #	Торіс	Report	Week Due

2	25	Cascaded CE Stages	Complete	3
4	26	CC and CB Amplifier	Abridged	5
8	33	JFET Amplifiers	Complete	7

#### **Academic Integrity Policy:**

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.

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. Serious cases may be reported to a division dean or director for further disciplinary action, including suspension or dismissal from HCCC.

Detailed information on the College's Academic Integrity policy may be found in the *HCCC Student Handbook*. The handbook also contains useful information for students on completing research projects and avoiding plagiarism.

# 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.