ELEC 71B Course Outline as of Fall 2009

CATALOG INFORMATION

Dept and Nbr: ELEC 71B Title: ELECTRONIC DEVICES 2
Full Title: Electronic Devices 2
Last Reviewed: 11/5/1997

Units		Course Hours per Week		Nbr of Weeks	Course Hours Total	
Maximum	3.00	Lecture Scheduled	3.00	17.5	Lecture Scheduled	52.50
Minimum	3.00	Lab Scheduled	0	17.5	Lab Scheduled	0
		Contact DHR	0		Contact DHR	0
		Contact Total	3.00		Contact Total	52.50
		Non-contact DHR	0		Non-contact DHR	0

Total Out of Class Hours: 105.00 Total Student Learning Hours: 157.50

Title 5 Category:	AA Degree Applicable
Grading:	Grade Only
Repeatability:	00 - Two Repeats if Grade was D, F, NC, or NP
Also Listed As:	
Formerly:	

Catalog Description:
Continuation of the study of Linear electronic circuits. Electronic devices are studied for recertification, amplification, and oscillating circuits.

Prerequisites/Corequisites:
Completion of ELEC 71A and ELEC 71AL. Not open to students who have completed ELEC 61.

Recommended Preparation:

Limits on Enrollment:

Schedule of Classes Information:
Description: Continuation of Elec 71A. (Grade Only)
Prerequisites/Corequisites: Completion of ELEC 71A and ELEC 71AL. Not open to students who have completed ELEC 61.
Recommended:
Limits on Enrollment:
Transfer Credit:

Repeatability: Two Repeats if Grade was D, F, NC, or NP

ARTICULATION, MAJOR, and CERTIFICATION INFORMATION:

AS Degree:	**Area**	Effective:	Inactive:
CSU GE:	**Transfer Area**	Effective:	Inactive:
IGETC:	**Transfer Area**	Effective:	Inactive:

CSU Transfer:	Effective:	Inactive:
UC Transfer:	Effective:	Inactive:

CID:

Certificate/Major Applicable:
Certificate Applicable Course

COURSE CONTENT

Outcomes and Objectives:
The student will be able to:
1. recognize the effects of loading upon an individual stage.
2. design and evaluate the performance of a JFET amplifier.
3. describe the behavior of both series and parallel resonance.
4. synthesize the basic power supply with voltage regulation and short circuit protection.
5. recall the operating characteristics of an SCR and a TRIAC.
6. identify and explain the basic L-C and R-C oscillator circuit.

Topics and Scope:

1. Series and parallel resonance, Q and bandwidth.
2. Classes of amplification, power amplifiers.
3. JFET structure and characteristics.
4. MOSFET structure and characteristics.
5. Regulated power supplies.
6. Short circuit protection.
7. S.C.R. - crowbar.
8. Oscillator basics.
9. Vacuum tube triode characteristics.

Assignment:

1. Textbook readings.
2. Textbook homework problems.
3. Handout homework problems.

Methods of Evaluation/Basis of Grade:

Writing: Assessment tools that demonstrate writing skills and/or require students to select, organize and explain ideas in writing.

None, This is a degree applicable course but assessment tools based on writing are not included because problem solving assessments are more appropriate for this course.	Writing 0 - 0%

Problem Solving: Assessment tools, other than exams, that demonstrate competence in computational or non-computational problem solving skills.

06.01.09 CRC approved inactivation 4/27/09. mpuha	Problem solving 40 - 40%

Skill Demonstrations: All skill-based and physical demonstrations used for assessment purposes including skill performance exams.

None	Skill Demonstrations 0 - 0%

Exams: All forms of formal testing, other than skill performance exams.

06.01.09 CRC approved inactivation 4/27/09. mpuha	Exams 60 - 60%

Other: Includes any assessment tools that do not logically fit into the above categories.

None	Other Category 0 - 0%

Representative Textbooks and Materials:
SEMICONDUCTORS CIRCUITS APPROXIMATIONS by Malvino.