

CATALOG INFORMATION

Dept and Nbr: ELEC 50A      Title: SURVEY OF ELEC  
Full Title: Survey of Electronics  
Last Reviewed: 10/29/1997

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	6	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:**  
A general study in basic concepts of electrical principles and electronic terminology; fundamentals of radio, TV, communications, and computers.

**Prerequisites/Corequisites:**

**Recommended Preparation:**  
Eligibility for ENGL 100 or ESL 100.

**Limits on Enrollment:**

**Schedule of Classes Information:**  
Description: General study in basic concepts of electrical principles & electronic terminology; fundamentals of radio, TV, communications & computers. (Grade Only)  
Prerequisites/Corequisites:  
Recommended: Eligibility for ENGL 100 or ESL 100.  
Limits on Enrollment:  
Transfer Credit:  
Repeatability: Two Repeats if Grade was D, F, NC, or NP

## **ARTICULATION, MAJOR, and CERTIFICATION INFORMATION:**

<b>AS Degree:</b>	<b>Area</b>		<b>Effective:</b>	<b>Inactive:</b>
	C	Natural Sciences	Fall 1981	Spring 2012
<b>CSU GE:</b>	<b>Transfer Area</b>		<b>Effective:</b>	<b>Inactive:</b>
<b>IGETC:</b>	<b>Transfer Area</b>		<b>Effective:</b>	<b>Inactive:</b>
<b>CSU Transfer:</b>		<b>Effective:</b>	<b>Inactive:</b>	
<b>UC Transfer:</b>		<b>Effective:</b>	<b>Inactive:</b>	

**CID:**

**Certificate/Major Applicable:**

Major Applicable Course

## **COURSE CONTENT**

### **Outcomes and Objectives:**

The student will be able to:

1. calculate voltage, current and resistance relationships using OHM's Law.
2. identify Basic Logic Symbols and Functions.
3. describe the Basic Operation of Computer Systems.
4. construct Basic Electronic Equipment.
5. define Basic Electronic Terminology.
6. identify and describe Basic Communications Systems.
7. write simple computer programs in the BASIC Language.
8. describe the operation of Basic Medical Electronic Systems.
9. describe the operation of Satellite Communications Systems.
10. describe the operation of Basic Recording and Playback Systems.
11. explain the basic operation of a CRT, TV, and VDT.

### **Topics and Scope:**

1. Electricity and Units.
2. Basic Analog Circuits, Amplifiers, Oscillators, Rectifiers.
3. Basic Electrical DC & AC Laws and Theories.
4. Semiconductors and Devices.
5. Systems: Analog & Digital.
6. Medical Electronics.
7. Communication Systems.
8. Computer and Logical Systems.
9. Office Equipment Electronics.
10. Entertainment Electronics Systems.

**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.

Written homework, Essay exams, Term papers

Writing  
5 - 10%

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

Homework problems, Quizzes, Exams

Problem solving  
5 - 10%

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

HARDWARE PROJECT

Skill Demonstrations  
0 - 10%

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

Multiple choice, True/false, Matching items, Completion

Exams  
70 - 90%

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

None

Other Category  
0 - 0%

## Representative Textbooks and Materials:

Instructor generated syllabus.