ELEC 90B Course Outline as of Fall 1997

CATALOG INFORMATION

Dept and Nbr: ELEC 90B Title: ELEC MATHEMATICS II
Full Title: Electronic Mathematics II
Last Reviewed: 11/3/2003

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:
Fundamental operations of trigonometry, periodic functions, harmonics, vectors, phasor algebra as applied to a series, parallel, series parallel, and bridge circuits. Logarithms, decibels, and transients. Binary math.

Prerequisites/Corequisites:
Course Completion of ELEC 90A OR Completion of MATH 27 or higher (V2)

Recommended Preparation:
Course Completion of MATH 156 (or MATH 56)

Limits on Enrollment:

Schedule of Classes Information:
Description: Fundamental operations of trigonometry, periodic functions, harmonics, vectors, phasor Algebra as applied to a series, parallel & series parallel & bridge circuits. Logarithms, decibels & transients. Binary Math. (Grade Only)
Prerequisites/Corequisites: Course Completion of ELEC 90A OR Completion of MATH 27 or higher (V2)
Recommended: Course Completion of MATH 156 (or MATH 56)

Limits on Enrollment:
Transfer Credit: CSU;
Repeatability: Two Repeats if Grade was D, F, NC, or NP

ARTICULATION, MAJOR, and CERTIFICATION INFORMATION:

AS Degree:	**Area**		Effective:	Inactive:
	B	Communication and Analytical Thinking	Fall 1981	Spring 2011
	MC	Math Competency		
CSU GE:	**Transfer Area**		Effective:	Inactive:
IGETC:	**Transfer Area**		Effective:	Inactive:

CSU Transfer:	Transferable	Effective:	Fall 1981	Inactive:	Spring 2011
UC Transfer:		Effective:		Inactive:	

CID:

Certificate/Major Applicable:
Certificate Applicable Course

COURSE CONTENT

Outcomes and Objectives:
The student will be able to:
1. analyze vectors graphically and mathematically.
2. identify and analyze periodic functions.
3. calculate electronic circuit problems using phasor Algebra.
4. apply logarithms to AC circuits.
5. calculate bridge circuits with loop equations and Thevinin's Theorem.
6. identify math related to the computer.

Topics and Scope:

1. Vectors.
2. Periodic functions.
3. Phasor algebra.
4. AC circuits.
   a. series
   b. parallel
   c. series - parallel
5. Logarithms with applications.
6. Math for the computer.
7. Bridge circuits - loop equations and Thevinin's Theorem.

Assignment:

1. Skill exercises.
2. Problem solving.

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.

Homework problems, Quizzes, Exams	Problem solving 0 - 100%

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.

None	Exams 0 - 0%

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

None	Other Category 0 - 0%

Representative Textbooks and Materials: