ELEC 68C Course Outline as of Fall 2009

CATALOG INFORMATION

Dept and Nbr: ELEC 68C Title: PULSE DIGITAL CIRC 3
Full Title: Pulse & Digital Circuits 3
Last Reviewed: 11/5/1997

Units		Course Hours per Week		Nbr of Weeks	Course Hours Total	
Maximum	4.00	Lecture Scheduled	3.00	17.5	Lecture Scheduled	52.50
Minimum	4.00	Lab Scheduled	2.00	10	Lab Scheduled	35.00
		Contact DHR	1.00		Contact DHR	17.50
		Contact Total	6.00		Contact Total	105.00
		Non-contact DHR	0		Non-contact DHR	0

Total Out of Class Hours: 105.00 Total Student Learning Hours: 210.00

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:
Diagnostic programs are introduced so that troubles can be isolated in a microcomputer system. Assembly language programs for the 8088 series of microprocessor are developed. These programs are integrated into the disk operating system for great efficiency in troubleshooting hardware. System hardware requirements and organization is covered.

Prerequisites/Corequisites:
Course Completion of ELEC 68B

Recommended Preparation:

Limits on Enrollment:

Schedule of Classes Information:
Description: Diagnostic programs are introduced so troubles can be isolated in a microcomputer system. Assembly language programs for the 8088 series of microprocessor are developed. These programs are integrated into the disk operating system for great efficiency in troubleshooting hardware. System hardware requirements & organization is covered. (Grade Only)

Prerequisites/Corequisites: Course Completion of ELEC 68B
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. identify the types of files i.e. COM, EXE, BAT.
2. assemble and disassemble program.
3. edit programs using Text Editor.
4. isolate problem to hardware or software.
5. disassemble and assemble a complete microcomputer.
6. configure system to operational parameters.
7. develop a library of diagnostic programs.
8. expand memory capabilities of the system.
9. install and format hard disk.
10. measure voltages using oscilloscope on pins.

Topics and Scope:

1. Debug versus the assembler.
2. Writing an assembly language program.
3. Running an assembly language program.
4. Examining and changing the contents of the registers.
5. Disk operating system functions.
6. Decoding machine language operation codes.
7. Using debug to trace a program.
8. Inside the read only memory.
9. Floppy disk drives and hard disk drives.
10. Component organization - schematic.
11. Central processing unit performance.
12. Testing system configuration.

13. Expanded memories.
14. Troubleshooting the motherboard.

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.

Homework problems, Lab reports, Quizzes, Exams	Problem solving 30 - 50%

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

Class performances, Performance exams	Skill Demonstrations 20 - 30%

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

Multiple choice, Completion	Exams 30 - 50%

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

None	Other Category 0 - 0%

Representative Textbooks and Materials:
06.01.09 CRC approved inactivation 4/27/09. mpuha