

<u>4/24/17</u>	<b>DATE</b>	<u>Technology</u>	<b>DIVISION</b>
<u>X</u>	<b>REQUIRED COURSE</b>	<u>X</u>	<b>NEW COURSE</b>
	<b>ELECTIVE COURSE</b>		<b>REVISION</b>

## LAKE LAND COLLEGE

### Course Information Form

**COURSE NUMBER** EET 056 **TITLE** Electronic Circuit Design/Fabrication

**SEM CR HRS** 3 **LT HRS** 2 **LAB HRS** 2 **SOE HRS** \_\_\_\_\_ **ECH** 3.5

**COURSE PCS#** \_\_\_\_\_ (Assigned by Administration)

**Prerequisites:** None

**Catalog Description** (40 Word Limit):

Drafting and fabrication techniques involved in the design of Printed Circuit boards. Drafting, PC board layout, fabrication, soldering, desoldering, and construction of electronic projects. The use of industry quality computer aided drafting equipment will be used in several phases.

List the Major Course Segments (Units)	Lt Hrs	Lab Hrs
Introduction to Electronic Drafting	2	2
Component Recognition and Catalog Usage	4	4
Block Diagrams, Flow Decision, and Process	2	2
Symbols, Logic Diagrams, Schematic Diagrams	7	8
Pictorial Views	3	2
Fabrication: Enclosures, Terminals	4	4
Printed Circuit Boards and Etching	4	4
Soldering Principles and Techniques	4	4

**EVALUATION:** Quizzes X Exams X Oral Pres \_\_\_\_\_ Papers \_\_\_\_\_  
 Lab Work X Projects X Comp Final X Other \_\_\_\_\_

**Textbooks:**

<b>Title:</b>	<b>Solid State Devices and Systems</b>
<b>Author:</b>	<b>Gary J. Rockis</b>
<b>Publisher:</b>	<b>American Technical Publishers</b>
<b>Volume/Edition:</b>	<b>4<sup>th</sup></b>
<b>Copyright Date:</b>	<b>12</b>
<b>Title:</b>	<b>Electronics Drafting</b>
<b>Author:</b>	<b>John Frostad</b>
<b>Publisher:</b>	<b>Goodheart Willcox</b>
<b>Volume/Edition:</b>	<b>4<sup>th</sup></b>
<b>Copyright Date:</b>	<b>2011</b>

Major Course Segment	Lecture/Lab Hours	Learning Outcomes
Introduction to Electronic Drafting	2 / 2	Demonstrate software applications to draw components, Block, Flow, Schematic and Process Diagrams.
Component Recognition and Catalog Usage	4 / 4	Identify the major components utilized in Electronic fabrication.
Block Diagrams, Flow Decision, and Process	2 / 2	Compare the different processes and utilize each one accordingly.
Symbols, Logic Diagrams, Schematic Diagrams	7 / 8	Identify and apply electronic symbols using software tools.
Pictorial Views	3 / 2	Illustrate pictorial views of the project to be fabricated.
Fabrication: Enclosures, Terminals	4 / 4	Demonstrate fabrication of circuit boards using tools and schematics.
Printed Circuit Boards and Etching	4 / 4	Design, construct, and clean a useful printed circuit board using tools and proper chemicals.
Soldering Principles and Techniques	4 / 4	Demonstrate soldering electronic components onto a fabricated circuit board.

**Course Outcomes:** At the successful completion of this course, students will be able to:

- Explain the design process.
- Develop technical writing skills.
- Create a schematic using electronic symbols.
- Describe the proper Soldering technique.
- Describe the proper etching process.