Course Syllabus
Wayne County Community College District
EE 105    Electronic Fabrication & Design

CREDIT HOURS:  2.00

CONTACT HOURS:  45.00

COURSE DESCRIPTION:
An introduction to electronic fabrication and design techniques. It includes circuit drafting, PCB design and etching, assembly, soldering and use of hand tools. Students are required to build circuits assigned by the instructor.

PREREQUISITES:  EE 102

EXPECTED COMPETENCIES:

• Identify all electronic components needed for the projects.
• Differentiate between the various methods of circuit manufacture.
• Draw a PCB layout for a given schematic.
• Use various electronic drafting techniques.
• Use soldering, desoldering and various hand tools used by an electronic technician.
• Draw a circuit mask on a cooper clad board.
• Etch PCB boards in a pre-approved etching solution.
• Drill holes in a PCB board and mount the devices according to a given schematic.
• Solder electronic components on PCB boards and check for continuity using a multimeter.
• Test electronic circuits and troubleshoot when necessary.

ASSESSMENT METHODS:
Student performance may be assessed by examination, quizzes, case studies, oral reports, group discussion, written reports or presentations. The instructor reserves the option to employ one or more of these assessment methods during the course.

GRADING SCALE:
A  = 94% to 100%
B  = 87% to 93%
C  = 80% to 86%
D  = 73% to 79%
E  = less than 72%