Course Title: Basic Soldering
Quarter Course Prefix and Number: EIAT 12
Semester Course Prefix and Number: EIAT 1295

Approval Date: Revision Date: 2/22/06

Number of Credits: 1 Number of Lecture Credits: 0 Number of Lab Credits: 1
Number of Studio/Discussion Credits: 

Class Size: 24

Negotiated by AASC on (Date) __

Course Purpose Code:

0 – Developmental Courses
1 – Non-Transferable General Studies
2 – Technical course related to career programs
3 – College course which has the primary goal of applying certain concepts (e.g. vocal ensemble)
4 - Other college course not considered a part of general education (MNTC) e.g. computer science, health, physical education
5 – Course which is intended to fulfill Minnesota Transfer Curriculum (MNTC) requirements.
9 – Continuing Education/Customized Training specialized credit course (not occurring in 0-5)

Catalog Description:
This offering is designed as a foundational course for those entering electrical maintenance/engineering related fields. Basic soldering concepts are studied with a focus on materials, equipment and various soldering processes. Lab safety and the safe and proper use of tools and test equipment is emphasized.

Prerequisites and/or recommended entry skills/knowledge:
Course Prerequisite(s): None
Reading Prerequisite: Minimum score on basic skills test
Composition Prerequisite: Minimum score on basic skills test
Mathematics Prerequisite: Minimum score on basic skills test

Career Programs and Transfer Majors Accessing this Course:
Electrical and Industrial Automation Technology

Minnesota Transfer Curriculum Goal(s) partially met by this course if applicable:

0. X None
1. _____ Communications
2. _____ Critical Thinking
3. _____ Natural Sciences
4. _____ Mathematical/Logical Reasoning
5. _____ History and the Social and Behavioral Sciences
6. _____ The Humanities and Fine Arts
7. _____ Human Diversity
8. _____ Global Perspectives
9. _____ Ethical and Civic Responsibility
10. _____ People and the Environment
Learning outcomes, including any relevant competencies listed in the Minnesota Transfer Curriculum:

Following the completion of this course the student will be able to demonstrate the ability to:

1.) State the safety precautions to take when soldering.
2.) Describe the various forms of solder and soldering equipment available.
3.) Explain the three methods of wire stripping.
4.) Describe the procedures for tinning.
5.) Explain the soldering process.
6.) Compare or contrast point-to-point, PCB, and surface mount device soldering.
7.) Describe the procedures for common soldering and drag soldering.
8.) Distinguish a good soldered connection from a poor one.
9.) Explain the three methods of removing solder.
10.) Observe proper safety procedures.
11.) Work cooperatively.
12.) Apply critical thinking skills.

Possible student assessment methods:

Lab assignments, worksheets, papers, and tests.

Use of instructional technology (includes software, interactive video and other instructional technologies):

Power Point Software, videos, software based lab simulators.

A one-paragraph summary or outline of the major course content:

See “Learning Outcomes” above.

Additional special information (special fees, directives on hazardous materials, etc.)

Laptop Computer Lease

Approvals:

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Distribution: Original – Administrative Office
Copies: Curriculum Committee Chair, Learning Center, Library, Originating Faculty Member, Records, Student Services, Scheduler, Transfer Specialist
Revised February 10, 2004