ANALOG AND DIGITAL ELECTRONICS LAB — ELEC 1220

A. Course Description

- **Credits:** 4.00
- **Lecture Hours/Week:** 0.00
- **Lab Hours/Week:** 4.00
- **OJT Hours/Week:** 0
- **Prerequisites:**
  - ELEC 1110: D.C. Electricity Theory and Lab
  - ELEC 1120: A.C. Electricity Theory and Lab
  - MATS 1205: Math for Electricians
- **Corequisites:** None
- **MnTC Goals:** None

This course covers connecting, testing, and analyzing semiconductors, power supplies, amplifiers, digital circuits, microprocessor applications, sensors, and signal coupling materials/devices. Prerequisites: Elec 1120, Elec 1110, MATS 1205

B. Course Effective Dates: 8/21/03 – Present

C. Outline of Major Content Areas

  As noted on course syllabus

D. Learning Outcomes

1. Analyze amplifier circuits
2. Analyze digital circuits
3. Analyze microprocessor applications
4. Analyze power supplies
5. Analyze semiconductors
6. Analyze sensors
7. Analyze signal coupling devices
8. Connect amplifier circuits
9. Connect digital circuits
10. Connect microprocessor circuits
11. Connect power supplies
12. Connect semiconductors
13. Connect sensors
14. Connect signal coupling devices
15. Observe amplifiers
16. Observe digital circuits
17. Observe microprocessor applications
18. Observe power supplies
19. Observe semiconductors
20. Observe sensors
21. Observe signal coupling devices
22. Test amplifier circuits
23. Test digital circuits
24. Test microprocessor circuits
25. Test power supplies
26. Test semiconductors
27. Test sensors
28. Test signal coupling devices
29. Use microprocessor circuits

E. Minnesota Transfer Curriculum Goal Area(s) and Competencies

F. Learner Outcomes Assessment
   As noted on course syllabus

G. Special Information
   None noted