

Minnesota State College Southeast

ELEC 1248: Basic Installation

A. COURSE DESCRIPTION

Credits: 4

Lecture Hours/Week: 2

Lab Hours/Week: 4

OJT Hours/Week: *.*

Prerequisites: None

Corequisites: None

MnTC Goals: None

The Student will learn the proper procedures to disassemble a vehicle, evaluate, and install a complete system. The course will follow the Mobile Electronics Certified Professional (MECP) guidelines.
(Prerequisite: None) (4 credits: 2 lecture/2 lab)

B. COURSE EFFECTIVE DATES: 08/27/2004 - Present

C. OUTLINE OF MAJOR CONTENT AREAS

D. LEARNING OUTCOMES (General)

1. Identify safe working conditions
2. Demonstrate safety habits
3. Identify electrical flow
4. Describe electrical circuits
5. Describe generation of electricity
6. Operate digital meter
7. Calculate proper wire gauge
8. Identify electrical components
9. Identify parallel circuits
10. Measure voltage
11. Measure current
12. Measure resistance
13. Determine voltage polarities
14. Identify electrical symbols
15. Describe electrical laws & formulas
16. Identify open and closed circuits
17. Describe electronic terms
18. Compare conventional and electron current
19. Describe factors affecting resistance & voltage drops
20. Define proper relay operation
21. Identify resistor values
22. Identify proper routes for wires
23. Calculate circuit values using Ohm's law
24. Calculate resistor power dissipation
25. Identify device limitations
26. Identify series circuits
27. Locate in series circuits shorts and opens
28. Solve for parallel circuit parameters
29. Locate in parallel circuits opens and shorts
30. Identify series-parallel circuits
31. Solve for series-parallel circuit parameters
32. Identify filter response
33. Identify types of noise problems

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

None

F. LEARNER OUTCOMES ASSESSMENT

As noted on course syllabus

G. SPECIAL INFORMATION

None noted