



COMMON COURSE OUTLINE: Course discipline/number/title: AMT 1720: Electrical Theory

A. CATALOG DESCRIPTION

1. Credits: 2
2. Hours/Week: 2
3. Prerequisites (if any): None
4. Co-requisites (if any): None
5. MnTC Goals (if any): NA

This course covers the theory of basic electricity, starting and charging systems, electrical accessories and troubleshooting and repair of above systems. Recommended Entry Skills/Knowledge: High School Diploma/GED.

B. DATE LAST REVISED (use current date): April, 1997

C. OUTLINE OF MAJOR CONTENT AREAS:

1. Basic Electricity and Electrical Theory
2. Starting Systems
3. Charging Systems
4. Electrical Accessories
5. Diagnostic Equipment and Usage
6. Troubleshooting and Repair of Automotive Electrical Systems

D. LEARNING OUTCOMES (GENERAL): The student will:

1. Apply Ohms Law and relate electrical formulas to problem solving.
2. Describe use and application of electrical test instruments.
3. Describe operation of starting and charging systems.
4. Describe diagnosis steps of starting and charging systems.
5. Describe electrical accessories and their function.
6. List troubleshooting steps for electrical accessories.
7. Describe any additional steps concerning overall electrical service and maintenance.

E. LEARNING OUTCOMES (MNTC): NA

F. METHODS FOR EVALUATION OF STUDENT LEARNING:

1. Quizzes
2. Tests
3. Worksheets
4. Assignments

G. SPECIAL INFORMATION (if any):

This course must be taken prerequisite to or in concurrent with AMT 1725.