

#453(D)

SAULT COLLEGE OF APPLIED ARTS AND TECHNOLOGY

SAULT STE. MARIE, ON

COURSE OUTLINE

COURSE TITLE: POWER TRAINS

CODE NO.: MVM014

SEMESTER: 36 Weeks

PROGRAM: MOTOR VEHICLE TECHNICIAN

AUTHORS: Dan Tregonning/Steve Kent

DATE: August 1994 PREVIOUS OUTLINE DATED: August 1993

APPROVED: _____
Dean, School of Technical Trades Date

COURSE NAME: **POWER TRAINS** - MVM014

PREREQUISITE(S):

I. PHILOSOPHY/GOALS:

This course will introduce the basics of power trains and give the student comparable knowledge of a basic level apprentice.

II. STUDENT PERFORMANCE OBJECTIVES:

Upon successful completion of this course the student will have the basic knowledge of transmissions and drive lines.

III. TOPICS TO BE COVERED:

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1. Fundamentals of Drives, Bearings and Clutches

- a) Demonstrate a working knowledge of the fundamental principles of automotive clutch assemblies.
- b) Demonstrate a working knowledge of replacement of clutch assemblies.
- c) Service and adjust clutch linkages.
- d) Diagnose clutch assemblies malfunctions.
- e) Demonstrate a working knowledge of the fundamental principles of bearings.

2. Manual Shift Transmissions

- a) Demonstrate a working knowledge of the construction and operation of manual shift transmissions and differential assemblies (transaxle).
- b) Dismantle, inspect and reassemble a front wheel drive manual shift transmission and differential assembly (transaxle).
- c) Demonstrate a working knowledge of the removal and installation of manual shift transmissions.
- d) Demonstrate a working knowledge of the removal and installation of axle drive gear and differential assemblies.

3. Front Wheel Drive Lines

- a) Demonstrate a working knowledge of the basic design of drivelines.
- b) Demonstrate a working knowledge of the removal, installation of and service procedures of drive lines.
- c) Service, align and balance drive shaft assemblies.
- d) Demonstrate a working knowledge of the removal, installation and service of front wheel drive wheel bearings.

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V. EVALUATION METHODS:

- . random tests & quizzes
- . weekly tests
- . shop practices
- . attendance

VI. REQUIRED STUDENT RESOURCES

- . Text (Supplied by College)
- . Coveralls
- . Safety Glasses (CSA Approved)
- . Regulation Safety Boots (CSA Approved) (Min.6")

VII. ADDITIONAL RESOURCE MATERIALS AVAILABLE IN THE COLLEGE LIBRARY BOOK SECTION:

VIII. SPECIAL NOTES