

**Course discipline/number/title: AMT 2742: Manual Drive Train Lab****A. CATALOG DESCRIPTION**

1. **Credits:** 4
2. **Hours/Week:** 8
3. **Prerequisites (Course discipline/number):** None
4. **Other requirements:** None
5. **MnTC Goals (if any):** NA

**B. COURSE DESCRIPTION:** This course is a hands-on lab class and will cover automotive and light truck clutches, manual and automatic transmission/transaxles, differentials, and drivelines. Content includes mechanical, electronic, and hydraulic system, driveshaft phasing, alignment, balance, gear ratios, and diagnosis. All-wheel drive and 4-wheel drive.**C. DATE LAST REVISED (Month, year):** February, 2022**D. OUTLINE OF MAJOR CONTENT AREAS:**

1. Manual Transmissions
2. Transfer Cases
3. Manual Transaxles
4. Electronic controls
5. Differentials
6. Gear Ratios

**E. LEARNING OUTCOMES (GENERAL):** The student will be able to:

1. Service and repair clutches.
2. Service and repair transmissions.
3. Service and repair differentials
4. Service and repair transfer cases
5. Service and repair transaxles

**F. LEARNING OUTCOMES (MNTC):** NA**G. METHODS FOR EVALUATION OF STUDENT LEARNING:** Methods may include but are not limited to:

1. Lab Work
2. Worksheets

**H. RCTC CORE OUTCOME(S).** This course contributes to meeting the following RCTC Core Outcome(s):  
**Communication.** Students will communicate appropriately for their respective audiences.

**Critical Thinking.** Students will think systematically and explore information thoroughly before accepting or formulating a position or conclusion.

**I. SPECIAL INFORMATION (if any):** None