



Course Information

Course Title	Automotive Drive Train and Axles
Course Prefix, Num. and Title	AUMT 2413
Division	Vocational Science
Department	Automotive Technology
Course Type	WECM Course
Course Catalog Description	A study of automotive clutches, clutch operation devices, manual transmissions/transaxles, and differentials, with emphasis on the diagnosis and repair. May be taught with manufacturer specific instructions.
Pre-Requisites	Credit for or concurrent enrollment in AUMT 1301
Co-Requisites	AUMT 1310, AUMT 2425, and AUMT 2434

Semester Credit Hours

Total Semester Credit Hours (SCH): Lecture Hours:	4:3:4
Lab/Other Hours	
Equated Pay Hours	5
Lab/Other Hours Breakdown: Lab Hours	4
Lab/Other Hours Breakdown: Clinical Hours	Enter Clinical Hours Here.
Lab/Other Hours Breakdown: Practicum Hours	Enter Practicum Hours Here.
Other Hours Breakdown	List Total Lab/Other Hours Here.

Approval Signatures

Title	Signature	Date
Prepared by:		
Department Head:		
Division Chair:		
Dean/VPI:		
Approved by CIR:		

Additional Course Information

Topical Outline: Each offering of this course must include the following topics (be sure to include information regarding lab, practicum, and clinical or other non-lecture instruction).

Drivetrain Theory
Clutches
Manual Transmissions and Transaxles
Drive Train and Universal Joints
Differentials and Drive Axles
Four-Wheel-Drive Systems
Drivetrain Electrical and Electronic Systems

Course Learning Outcomes:

Learning Outcomes – Upon successful completion of this course, students will:

1. Utilize appropriate safety procedures.
2. Diagnose and repair drivelines, clutches, manual transmissions/transaxles, and differentials.
3. Service constant velocity joints and universal joints.

Methods of Assessment:

1. Quizzes and assignments Completion of priority 1,2, and 3 items on the ASE task list, job sheets.
2. Quizzes and assignments Completion of priority 1, 2, and 3 items on the ASE task list, job sheets.
3. Quizzes and assignments Completion of priority 1, 2, and 3 items on the ASE task list, job sheets.

Required text(s), optional text(s) and/or materials to be supplied by the student:

CDX Online e Textbook. & Fundamentals of Automotive Technology CDX Automotive Jones & Bartlett Learning textbook.
Complete set of tools in compliance with the tool list.

Suggested Course Maximum:

24

List any specific or physical requirements beyond a typical classroom required to teach the course.

Complete auto shop lab with all the tools required by ASE to meet the standards for Automotive Manual Transmission/Transaxle Certification.

Course Requirements/Grading System: Describe any course specific requirements such as research papers or reading assignments and the generalized grading format for the course.

90%to 100% = A
80%to 89% = B
70%to79% = C
60%to 69% = D

Below 60% = F

The grade is based on the percentage basis between lecture and lab.

Quizzes and assignments will count 30% of the course grade. At the end of the course a final exam will be given that will count 10% of the course grade. The auto shop lab grade will count 60% of the course grade.

Lab work will be evaluated on attendance, percentage completion of priority 1, 2, and 3 items on the ASE task list, job sheets, having the required tools to perform lab work, cleanliness, and attitude.

Curriculum Checklist:

- Administrative General Education Course** (from ACGM, but not in WCJC Core) – No additional documents needed.
- Administrative WCJC Core Course.** Attach the Core Curriculum Review Forms
 - Critical Thinking
 - Communication
 - Empirical & Quantitative Skills
 - Teamwork
 - Social Responsibility
 - Personal Responsibility
- WECM Course** -If needed, revise the Program SCANS Matrix and Competencies Checklist