Automotive Technology - Associate of Applied Science Degree

Code: F_AAS_AUT
Campus: Larimer and Westminster

This program provides students with entry-level skills and upgrading for those in the automotive field. Program graduates use their technical skills to test, diagnose, and repair the complex mechanical, chemical, and electronic equipment found in today's automobiles. This includes an understanding of the principles associated with engines and drive trains, brakes and alignment, and fuel and emission controls. All automotive technology programs are National Automotive Technician's Education Foundation (NATEF)-accredited, and all program instructors are ASE certified.

Automotive Technology coursework is offered on an open entry basis: students may complete some of the courses, enter the workforce, and then return to complete the program or upgrade a specific skill. Specific courses may not be offered every semester. Working professionals may take individual classes to upgrade skills without earning a degree. Credit may be granted for previous education/training or related work experience. Demonstrated mastery of skills is required. Refer to Credit for Prior Learning section.

Articulation agreements exist with many local secondary and postsecondary vocational programs. Contact a program advisor to determine whether credit may be awarded for previous training.

Assessment testing is required for all students. Students who place into CCR 092 or above and MAT 050 or above may begin this program of study. Students scoring below this level should consult with a faculty member before registering for courses in this program of study.

All courses applied to the degree and/or certificate must be completed with a grade of "C" or above.

Students with relevant coursework and/or relevant industry job experience should contact an ASE faculty/advisor to determine if credit can be granted.

Students MUST meet with an ASE faculty/Advisor before registration.

REQUIRED COURSES	***CREDITS***
ASE 101 Automotive Shop Orientation	2
ASE 110 Brakes I	2
ASE 111 Brakes II	2
ASE 120 Basic Automotive Electricity	2
ASE 122 Automotive Electrical Safety Systems	1
ASE 123 Automotive Battery, Starting, and Charging Systems	2
ASE 130 General Engine Diagnosis	2
ASE 134 Automotive Emissions	2
ASE 140 Suspension and Steering I	2
ASE 141 Steering and Suspension II	2
ASE 150 Manual Drivetrain and Axle Maintenance	2
ASE 151 Manual Transmission/Transaxles and Clutches I	2
ASE 152 Manual Transmission/Transaxles and Clutches II	2
ASE 160 Automotive Engine Repair	2
ASE 161 Automotive Engine Repair and Rebuild	3
ASE 162 Automotive Engine Service	2
ASE 210 Automotive Power and ABS Brake Systems	2
ASE 221 Automotive and Diesel Body Electrical	4
ASE 231 Automotive Computers and Ignition Systems	2
ASE 233 Fuel Injection and Exhaust Systems	4
ASE 240 Suspension and Steering III	2
ASE 250 Automotive Transmission/Transaxle Service	1
ASE 251 Automatic Transmission/Transaxle Repair	3
ASE 264 Introduction to Automotive Heating and Air Conditioning	1
ASE 265 Automotive Heating and Air Conditioning	4
MTE 110 Manufacturing Communication & Teamwork	3
Total Required Credits	58

REQUIRED GENERAL EDUCATION COURSES	CREDITS
ENG 121 English Composition I OR ENG 131 Technical Writing I	3
MAT 107 Career Mathematics, MAT 108 Technical Mathematics OR any GT-MA1 course	3
PHY 105 Conceptual Physics	4
Social Science or Arts and Humanities Elective*	3
General Studies Elective*	3
Total Required General Education Credits	***16***
Total Required Credits for AAS degree	**74**

Note: ASE 285 Independent Study may be substituted for any of the ASE modules with permission of the instructor and cannot exceed 12 credit hours. Additional courses are listed and described in the Course Offerings section of this catalog.

** Electives must be selected from the Approved General Education Electives List for the AAS degree.*

GAINFUL EMPLOYMENT DISCLOSURE INFORMATION

The U.S. Department of Education requires colleges to disclose a variety of information for any financial-aid-eligible program that "prepares students for gainful employment in a recognized occupation." The information provided here is the best available to us but represents one year's data only. We hope that this information is helpful to our current students and to prospective students as they make their career and educational choices. For more Gainful Employment information, please go to the FRCC website: www.frontrange.edu/GainfulEmployment.

Automotive Technology - Certificates

Automatic Transmission/Transaxle Certificate

Code: F_CER_AAUT_02
Campus: Larimer and Westminster

REQUIRED COURSES	CREDITS
ASE 101 Automotive Shop Orientation	2
ASE 150 Manual Drivetrain and Axle Service	2
ASE 152 Manual Trans/Transaxles/Clutch II	2
ASE 250 Automatic Transmission/Transaxle Service	1
ASE 251 Automatic Transmission/Transaxle Repair	3
Total Required Credits for Certificate	**10**

Brakes Certificate

Code: F_CER_AUB_05
Campus: Larimer and Westminster

REQUIRED COURSES	CREDITS
ASE 101 Automotive Shop Orientation	2
ASE 110 Brakes I	2
ASE 111 Brakes II	2
ASE 120 Basic Automotive Electricity	2
ASE 210 Automotive Power and ABS Brake Systems	2
Total Required Credits for Certificate	**10**

Electrical/Electronic Systems Certificate

Code: F_CER_AAEE_01
Campus: Larimer and Westminster

REQUIRED COURSES	CREDITS
ASE 101 Automotive Shop Orientation	2
ASE 120 Basic Automotive Electricity	2
ASE 122 Automotive Electrical Safety Systems	1
ASE 123 Automotive Battery, Starting and Charging Systems	2

ASE 221 Automotive and Diesel Body Electrical	4
ASE 231 Automotive Computers	2
Total Required Credits for Certificate	**13**

Engine Performance Certificate

Code: F_CER_ENPR
Campus: Larimer and Westminster

REQUIRED COURSES	*CREDITS*
ASE 101 Automotive Shop Orientation	2
ASE 120 Basic Automotive Electricity	2
ASE 122 Automotive Electrical Safety Systems	1
ASE 123 Automotive Battery, Starting and Charging	2
ASE 130 General Engine Diagnosis	2
ASE 134 Automotive Emissions	2
ASE 231 Automotive Computers and Ignition Systems	2
ASE 233 Fuel Injection and Exhaust Systems	4
Total Required Credits for Certificate	**17**

Engine Repair Certificate

Code: F_CER_AER_03
Campus: Larimer and Westminster

REQUIRED COURSES	*CREDITS*
ASE 101 Automotive Shop Orientation	2
ASE 120 Basic Automotive Electricity	2
ASE 130 General Engine Diagnosis	2
ASE 160 Automotive Engine Repair	2
ASE 161 Automotive Engine Repair and Rebuild	3
ASE 162 Automotive Engine Service	2
Total Required Credits for Certificate	**13**

General Automotive Maintenance & Repair Certificate

Code: F_CER_000_00
Campus: Larimer and Westminster

REQUIRED COURSES	*CREDITS*
ASE 101 Automotive Shop Orientation	2
ASE 110 Brakes I	2
ASE 120 Basic Automotive Electricity	2
ASE 130 General Engine Diagnosis	2
ASE 140 Suspension and Steering I	2
Total Required Credits for Certificate	**10**

Heating and Air Conditioning Certificate

Code: F_CER_ATAC
Campus: Larimer and Westminster

REQUIRED COURSES	*CREDITS*
ASE 101 Automotive Shop Orientation	2
ASE 120 Basic Automotive Electricity	2
ASE 264 Introduction to Automotive Heating and Air Conditioning	1
ASE 265 Automotive Heating and Air Conditioning	4
Total Required Credits for Certificate	**9**

Light Diesel Engine Repair Certificate

Code: F_CER_ATDT
Campus: Larimer

REQUIRED COURSES	*CREDITS*
ASE 101 Automotive Shop Orientation	2
ASE 120 Basic Automotive Electricity	2
ASE 123 Battery, Starting and Charging Systems	2
DPM 100 Introduction to Diesel Mechanics	2
DPM 103 Diesel Engines I	4
DPM 203 Diesel Engines II	4
Total Required Credits for Certificate	**16**

Manual Drivetrain and Axles Certificate

Code: F_CER_AUTW_09
Campus: Larimer and Westminster

REQUIRED COURSES	*CREDITS*
ASE 101 Auto Shop Orientation	2
ASE 120 Basic Automotive Electricity	2
ASE 150 Manual Drivetrain and Axle Maintenance	2
ASE 151 Automotive Manual Transmission/Transaxles and Clutches I	2
ASE 152 Automotive Manual Transmission/Transaxles and Clutches II	2
Total Required Credits for Certificate	**10**

Suspension and Steering Certificate

Code: F_CER_AUTS_08
Campus: Larimer and Westminster

REQUIRED COURSES	*CREDITS*
ASE 101 Automotive Shop Orientation	2
ASE 120 Basic Automotive Electricity	2
ASE 140 Suspension and Steering I	2
ASE 141 Suspension and Steering II	2
ASE 240 Suspension and Steering III	2
Total Required Credits for Certificate	**10**