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GEAR UP FOR A GREAT CAREER IN AUTOMOTIVE TECHNOLOGY

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FRONT RANGE
COMMUNITY COLLEGE

AUTOMOTIVE TECHNOLOGY IS A FAST-GROWING CAREER FIELD

Hundreds of good-paying jobs are waiting for trained applicants

The U.S. Department of Labor estimates a 14 percent to 20 percent increase in demand for automotive service technicians over the next eight years – with as many as 110,000 new jobs across the country and 570 each year in Colorado alone. Automobile dealerships and independent repair shops will have the most openings, but you also will find opportunities in the "after-market" specialties such as oil changes, brake repair, and air-conditioning service. An Associate of Applied Science (A.A.S.) degree from Front Range Community College (FRCC) will help you get a great job with good pay.

INSTRUCTOR PROFILE

Gregg Musser

Gregg is a man for all auto racing seasons. You name it – from NASCAR to open wheel midget racing to high-performance automobile road racing – and Gregg is totally involved. After 28 years as a master technician with Jaguar and 10 seasons as a member of the NASCAR Technical Council, Gregg is known coast-to-coast for his work, especially in the area of precision engine building. These days, he takes the vast knowledge he has accumulated over the years and transfers it to students at the Westminster Campus. "I'm enjoying the students and the people I work with at FRCC," Gregg says. "It's a refreshing change of pace. I hope I'm helping the auto industry, which has many openings for well-trained mechanics."

Automotive Service Technicians

	Entry	Middle	Experienced
Statewide	$20,765/year	$36,168/year	$46,038/year
Boulder/Longmont	$24,480/year	$40,848/year	$52,246/year
Denver/Aurora	$21,484/year	$37,370/year	$47,156/year
Fort Collins/Loveland	$27,600/year	$40,288/year	$51,432/year
Greeley/Weld	$23,147/year	$35,106/year	$42,121/year

Occupational Employment Statistics Survey (2006)
Colorado Department of Labor and Employment

If you have an Associate of Applied Science (A.A.S.) degree from Front Range Community College, you will have the training in a wide variety of service areas – brakes, engines, emissions, suspension and steering, transmissions, electrical, automotive computers, and heating and air conditioning. You also will learn the teamwork and customer-service skills today's job market demands.

Want to get started faster? Choose a certificate. Some can be completed in one semester.

- **Advanced Drivability Diagnosis**
- **Automatic Transmission/Transaxle**
- **Brakes**
- **Electrical/Electronic Systems**
- **Engine Performance**
- **Engine Repair**
- **Heating and Air Conditioning**
- **Manual Drivetrain and Axles**
- **Suspension and Steering**

A career in automotive service could be just right for you. Do you like working with computers? There are more computers under the dashboard and hood than on the first spacecraft to orbit Earth, and all your technical manuals will be online. Do you like to work with your hands? There always will be lots of handwork on engines, but much of the "heavy lifting" has been replaced with power tools and lifts. Oh, you'll still need hand tools. Do you have a technical interest? Look where the automotive industry is heading – hybrids, electrics, and alternative fuels. Are you detail oriented? You will troubleshoot and diagnose problems before you fix them. Do you have an entrepreneurial streak? Start your own business.

Maybe you want to start at FRCC and later transfer to Colorado State University in an engineering field. You can do that. Talking with a faculty advisor should be your first step.

This is a quality program

The National Automotive Technicians Education Foundation Inc. (NATEF) evaluated FRCC's programs to make sure they meet or exceed the standards developed by the automotive industry. Then the National Institute for Automotive Service Excellence (ASE) certified our programs. The Automotive Youth Educational Systems (AYES) also accredits our Larimer Campus program, and the Westminster Campus is in the final process of earning AYES accreditation. Your FRCC degree, therefore, makes you highly qualified.

COME AND VISIT OUR CLASSES AND SHOPS

Learn from the best instructors in the business

They've been on the job. They've worked in the industry, and they have connections for internships and jobs. They're all ASE-certified – some have double or even triple certification! And now they want to teach. They have stories to tell that help make their subjects real and exciting. You can expect to learn a lot and have a great time doing it in small classes where you get lots of hands-on training and plenty of personal interaction. But don't take our word for it. Spend a day in our classes. Tour our shops. See for yourself.

Westminster Campus
3645 W. 112th Ave.
Westminster, CO 80031

Larimer Campus
4616 S. Shields St.
Fort Collins, CO 80526

Go to www.frontrange.edu/automotive

STUDENT PROFILE

Frank Martinez

Frank enjoyed working on cars with his father, so he worked with his high school guidance counselor to investigate career options. He entered the high school program at the Larimer Campus, and the month before his graduation from Poudre High School, he was working at Spradley-Barr Ford in Fort Collins, first as a porter. As he has earned certificates in the college program, he has worked his way up to the service line. With one more automotive class and then his general education course work for his Associate of Applied Science degree in sight, Frank, a native of Mexico, knows "there's always new technology with hybrids and electric engines and alternative fuels. Technicians never stop learning."

STUDENT PROFILE

Andrea Perry

Andrea is a service advisor at Iron Mountain Mazda in Windsor and is being promoted into the shop. "Ultimately, I want to be a master technician and own my own shop," she says. Her can-do attitude is ready to meet the challenge. She earned her automotive certificates as a single mother to Diesel, now 2½. Now she is working on the general education credits for an Associate of Applied Science degree. While living on a farm Andrea discovered she enjoyed working with her hands and fixing things. A Rocky Mountain High School graduate, Andrea started in the high school automotive program and continued into the college program. "The classes were excellent," she says. "The instructors are very knowledgeable."

Course requirements

for Associate of Applied Science in Automotive Technology

REQUIRED COURSES	CREDITS
ASE 101 Automotive Orientation	2
ASE 110 Brakes I	3
ASE 120 Basic Automotive Electricity	2
ASE 123 Automotive Battery, Starting, and Charging Systems	2
ASE 130 General Engine Diagnosis	2
ASE 132 Ignition System Diagnosis and Repair	2
ASE 134 Automotive Emissions	2
ASE 140 Suspension and Steering I	3
ASE 150 Automotive U-Joint and Axle Shaft Service	2
ASE 151 Automotive Manual Transmission/Transaxles and Clutches	2
ASE 152 Differentials and 4WD/AWD Service	2
ASE 161 Engine, Disassembly Diagnosis and Assembly	5
ASE 210 Brakes II	3
ASE 221 Automotive Body Electrical	4
ASE 231 Automotive Computers	2
ASE 233 Fuel Injection and Exhaust Systems	4
ASE 240 Suspension and Steering II	3
ASE 251 Automatic Transmission/Transaxle Diagnosis and Assemblies	5
ASE 265 Automotive Heating and Air Conditioning	5
MTE 110 Manufacturing Communication and Teamwork	3
or	
ASE 160 Automotive Engine Removal and Installation (at Westminster Campus)	1
And	
ASE 235 Drivability Diagnosis (at Westminster Campus)	1
And	
ASE 250 Automotive Transmission/Transaxle Service (at Westminster Campus)	1
Total Required Credits	**58**

REQUIRED GENERAL EDUCATION COURSES	CREDITS
ENG 131 Technical Writing I	3
MAT 107 Career Mathematics	3
PHY 105 Conceptual Physics	4

Course requirements for Automotive Technology, continued

REQUIRED GENERAL EDUCATION COURSES, CONTINUED	CREDITS
Social Science or Arts and Humanities Elective*	3
General Studies Elective*	3
Total Required General Education Credits	16
Total Required Credits for A.A.S. Degree	74

Note: ASE 285 may be substituted for any of the ASE modules with permission of the instructor and not to exceed 12 credit hours. Additional courses are listed and described in the Course Descriptions section of the catalog.
* Electives must be selected from the Approved General Education Electives List for the A.A.S. degree.

Course requirements for certificates in Automotive Technology

Advanced Drivability Diagnosis (Westminster)

REQUIRED COURSES	CREDITS
ASE 236 Advanced Drivability Diagnosis/Repair	4
ASE 252 Advanced Automatic Transmissions/Transaxles	2
Total Required Credits for Certificate	**6**

Automatic Transmission/Transaxle (Westminster and Larimer)

REQUIRED COURSES	CREDITS
ASE 101 Auto Shop Orientation	2
ASE 150 Automotive U-Joint and Axle Shaft Service	2
ASE 152 Differentials And 4WD/AWD Service	2
ASE 250 Automatic Transmission/Transaxle Service (Westminster only)	1
or Elective credit with Program Advisor Approval	1
ASE 251 Automatic Transmission/Transaxle Diagnosis and Assemblies	5
Total Required Credits for Certificate	**12**

Brakes (Westminster and Larimer)

REQUIRED COURSES	CREDITS
ASE 101 Auto Shop Orientation	2
ASE 110 Brakes I	3
ASE 210 Brakes II	3
Total Required Credits for Certificate	8

INSTRUCTOR PROFILE

Joe Davis

When Joe, who teaches at the Larimer Campus, says all he's ever wanted to do is work on cars, he's got the Des Moines Register to back him up. When Joe was 9, a question he asked a syndicated newspaper column generated a feature story. Back then, he said he wanted to be an auto designer, an auto mechanic, and a race car driver. Well, he's an auto mechanic all right – ASE master-technician certified – and he's been a race car driver. Two out of three goals isn't bad. Joe taught three years in Larimer's high school automotive program before joining the college side. "We're teaching what the students want," he says. And he loves that. "I can't believe I get paid to do this."

Electrical/Electronic Systems (Westminster and Larimer)

REQUIRED COURSES	CREDITS
ASE 101 Auto Shop Orientation	2
ASE 120 Basic Automotive Electricity	2
ASE 123 Automotive Battery, Starting and Charging Systems	2
ASE 132 Ignition System Diagnosis and Repair	2
ASE 221 Automotive Body Electrical	4
ASE 231 Automotive Computers	2
ELECTIVE CREDITS	
ASE 220 Specialized Electronics Training (Westminster only)	2
Total Required Credits for Certificate	**14**

Engine Performance (Westminster and Larimer)

REQUIRED COURSES	CREDITS
ASE 101 Auto Shop Orientation	2
ASE 120 Basic Automotive Electricity	2
ASE 130 General Engine Diagnosis	2
ASE 132 Ignition System Diagnosis and Repair	2
ASE 134 Automotive Emissions	2
ASE 233 Fuel Injection and Exhaust Systems	4
ASE 235 Drivability Diagnosis (Westminster only)	
or Elective credit with Program Advisor Approval	1
Total Required Credits for Certificate	**15**

Engine Repair (Westminster and Larimer)

REQUIRED COURSES	CREDITS
ASE 101 Auto Shop Orientation	2
ASE 130 General Engine Diagnosis	2
ASE 160 Automotive Engine Removal and Installation (Westminster only)	1
or Elective credit with Program Advisor Approval	1
ASE 161 Engine Disassembly, Diagnosis and Assembly	5
Total Required Credits for Certificate	**10**

Heating and Air Conditioning (Westminster and Larimer)

REQUIRED COURSES	CREDITS
ASE 101 Auto Shop Orientation	2
ASE 120 Basic Automotive Electricity	2
ASE 265 Automotive Heating and Air Conditioning	5
Total Required Credits for Certificate	**9**

Manual Drivetrain and Axles (Westminster and Larimer)

REQUIRED COURSES	CREDITS
ASE 101 Auto Shop Orientation	2
ASE 150 Automotive U-Joint and Axle Shaft Service	2
ASE 151 Automotive Manual Transmission/Transaxle and Clutches	2
ASE 152 Differentials and 4WD/AWD Service	2
Total Required Credits for Certificate	**8**

Suspension and Steering (Westminster and Larimer)

REQUIRED COURSES	CREDITS
ASE 101 Auto Shop Orientation	2
ASE 140 Suspension and Steering I	3
ASE 240 Suspension and Steering II	3
Total Required Credits for Certificate	**8**

GET STARTED!

Contact

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