

Wyoming Community College Commission
Request for
New, Pilot or Revised Degree or Certificate

A. College: Laramie County Community College

B. Date submitted to WCCC: _____

C. Program

1. Request for:

New Program Pilot Program Revised Program

2. Program Title: Automotive Technology – Under Car/HVAC

3. Degree or Certificate to be awarded:

Degree: AA AS AAS Other

Certificate

4. Educational Pathway:

Energy Construction Hospitality Technology

Health Care Other

5. Total number of credit hours: 17

6. Suggested CIP (Classification of Instructional Program) code (6-digit):

47.0604 Automobile/Automotive Mechanics Technology/Technician

7. Planned semester/year new program will begin: Fall 2017

8. Will any part of this program be provided by non-accredited vendor(s)?

YES (Provide details) NO

9. Will all or part of this program be available to students via online or other distance education technologies?

At the start of the program? Within three years of the start of the program? No

D. Program description as it will be included in college catalog:

The Automotive Technology: Under Car/HVAC program is designed as the second of two LCCC Credit Diplomas to prepare the

student for employment in the automotive repair business as well as to meet the needs of those who want to upgrade their skills or meet personal objectives in auto repair. This program is designed to prepare the student for entry into the workforce while also laying the foundation for entry into the Automotive Technology AAS program.

1. Expected Student learning outcomes from completion of the program:

Upon completion of the program, students will be able to:

- Explore the theory, service, and repair of automotive braking systems.
- Investigate anti-lock brake theory; the repair of service booster units, master cylinders, and wheel cylinders; caliper rebuilds; and drum and rotor service.
- Investigate suspension and alignment theory: suspension systems will be diagnosed, measured, and repaired to Original Equipment Manufacturer (OEM) specifications. Wheel alignments will be performed on vehicles and adjusted to OEM specifications.
- Assess 4-wheel center point adjustments/alignments.
- Assess the theory of automatic transmissions.
- Demonstrate the overhaul of automatic transmissions in popular use today.
- Demonstrate the proper use of hand tools and specialized equipment and safety.
- Investigate the theory of 3-speed and 4-speed manual transmissions.
- Investigate basic heating and air conditioning theory.
- Diagnose, repair, and recharge air conditioning systems to OEM specifications.
- Diagnose and repair heating and air conditioning automatic systems.

2. Program Layout by Semester:

Course	Title	Credits
AUTO 1740	Brake Systems	3
AUTO 2550	Auto Alignment and Suspension	4
AUTO 1730	Automatic Transmissions	4
AUTO 1690	Manual Power Train Fundamentals	3
AUTO 1760	Heating and Air Conditioning	3
Semester Credits		17
Total Credits		17

E. New course prefixes, course credit hours and/or course numbers:

1. Recommended level of instruction (LOI) code if the community college is using a course prefix which is new to Wyoming public higher education institutions:

No new prefixes Suggested level of instruction

2. New Course prefixes, numbers and/or credit hours have been coordinated:

with UW (transfer) Yes No Not Applicable
or WCCC (career technical) Yes No Not Applicable

F. New course descriptions:

1. The following are course descriptions for each new course in the program (include prefix, course number, title, credit hours and description):

This program will consist of courses already available at LCCC.

G.* Can this program be delivered by current faculty? If not, what are the plans, budget and timeline for bringing on needed instructors?

Yes.

H. Summary of input from and coordination with citizens, business and industry or k-12 education:

The LCCC Automotive Repair Program has long operated with local businesses to help create a skilled workforce for Southeastern Wyoming. Members of the community include: automotive repair contractors, previous students and maintenance personnel. Industry has indicated that there is a shortage of workers and LCCC has created a two-diploma approach to meet student and industry needs.

I.* Resources required to start and sustain the program and the current plan to meet those resource needs through college or other external funds:

Required resources are currently in place for this program.

J.* Projected demand in Wyoming and Nation for five years from the proposed implementation date (career technical programs:

Nationally, the trend continues to show a short fall of 9 percent between present time and 2022. The need in Wyoming and surround areas is increasing however.

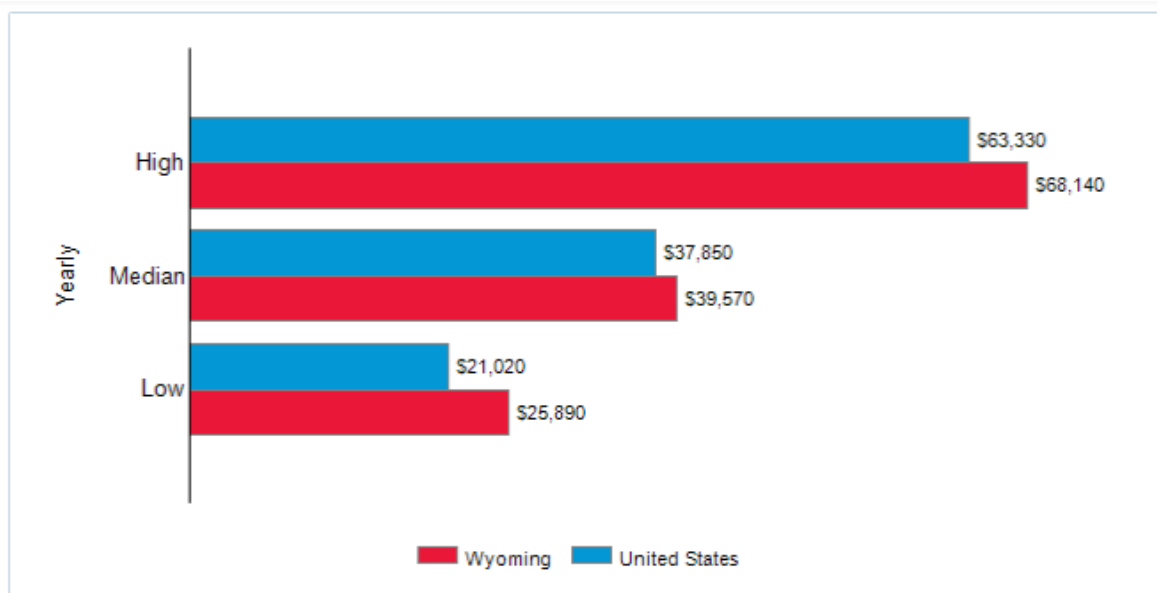
1. State and National Trends

United States	Employment		Percent Change	Projected Annual Job Openings
	2012	2022		
Automotive Specialty Technicians and Mechanics	701,100	761,500	+9%	23,760
Wyoming	Employment		Percent Change	Projected Annual Job Openings
	2012	2022		
Automotive Specialty Technicians and Mechanics	1,670	1,840	+10%	60

Source:

- Occupational Information Network (O*NET Online), <http://www.onetonline.org/link/summary/49-3023.02>

2. State and National Wages



Source:

- [Bureau of Labor Statistics, Occupational Employment Statistics Survey](#)
- Occupational Information Network (O*NET OnLine), <http://www.onetonline.org/link/summary/49-3023.02>

3. Primary student audience identified for this program:

For LCCC, we anticipate targeting several different groups within the community, including incumbent workers who are currently in the automotive repair field that want to or are required to expand their knowledge; individuals seeking advancement opportunities; displaced workers desiring retraining, poverty-to-self-sufficiency training programs; and high school graduates who are interested in technical fields.

4. Anticipated enrollment in the three academic years after WCCC approval (unduplicated headcount) with the basis for the estimate:

15 Year One 15 Year Two 30 Year Three

K.* Student recruitment and program marketing strategies to attract the broadest range of individuals for this particular program:

To attract the broadest range of individuals for this particular program LCCC will utilize industry contacts in automotive repair to identify and recruit students currently in the workforce who need to update their skills. Industry partners are very supportive and have committed to referring students to the community colleges. We plan to market to Department of Workforce Services, high school counselors and students, veterans and transitioning military personnel, poverty to self-sufficiency programs and other displaced workers.

In addition, a full marketing campaign if needed, will be designed for this program that would include: Website, Facebook, and other social media venues, college marketing venues such as television stations, press releases, radio interviews and other areas as identified by the respective public relations departments. We will work closely with our admissions staff on specific recruitment strategies.

- L.* Identification of similar programs at Wyoming Community Colleges and an overview of results of discussions with faculty and administrators at the relevant colleges regarding curriculum and possible joint projects:**

Wyoming Community College Programs (Identify title, degree/certificate and number of credit hours)						
Casper College	Central Wyoming College	Eastern Wyoming College	Laramie County Community College	Northwest College	Northern Wyoming Community College District	Western Wyoming Community College
Automotive Technology Certificate, 41 CH	Automotive Technology Certificate, 39 CH	N/A	Automotive Technology Certificate, 33 CH	N/A	N/A	Automotive Technology Certificate, 39 CH
Automotive Technology AAS, 64 CH	Automotive Technology AAS, 65 CH		Automotive Technology AAS, 64-67 CH			Automotive Technology AAS, 68-70 CH

- M. Note available program and course articulations with other likely transfer institutions in the region, particularly for transfer AA and AS programs. (Note regional Bachelor of Applied Science transfer options in addition to UW.)**

This program is not designed for transfer.

- N. When appropriate, note partnerships with business, industry, associations or agencies that have contributed to the design of the proposed program and/or who will contribute to the delivery of the program.**

Local advisory board members, specifically automotive repair contractors and maintenance personnel, are providing input on technical needs for this particular region of the country. By using national and local input for the program, we will provide the best curriculum and learning environment for our students.

O. Assessment of student learning and completer follow-up per performance indicators. How will the assessment outcomes be used to assure student learning and improve the program?

The assessment of student learning and program outcomes include:

- Student learning outcomes achieved in program courses and course success rates will be reviewed each semester
- Student certificate completion rates
- Student evaluations of instruction for each course
- Employer and graduate student surveys
- Advisory committee bi-annual reviews of student and program outcomes

P.* Other program information or comments that would assist the commission in making a decision using the Guidelines for Use of this Evaluation Tool found in Appendix A of the 2010 WCCC Statewide Strategic Plan.

This program addresses Wyoming and regional interests in the following ways not addressed earlier in this request:

EDUCATED CITIZENTRY – Through this accelerated program students may earn an Automotive Technology: Under Car/HVAC Certificate, thus increasing the number of post-secondary education certificates in Wyoming. In addition, the program supports high demand and high pay occupations, which improves the quality of life for our students and the clients who will be served by their skills.

DIVERSIFIED ECONOMY – This program helps build the technical skills required to support the changing skills required for energy related industries. Many of the fundamental skills developed through the automotive repair, mechanical and safety courses are relevant across industry.

WORKFORCE DEVELOPMENT – We developed the automotive repair program curriculum from nationally recognized industry standards and input from the LCCC advisory board. We selected courses that respond to current and emerging technologies in the industry. The program will also ensure LCCC will be prepared for starting their ASE certification.

EFFICIENT SYSTEMS – Career pathways coordinators are working closely with the automotive body repair instructor to align the skill sets of secondary school students with our program. The alignment will provide a seamless pathway for students from secondary to post-secondary education and on into industry.

ACCOUNTABILITY and IMPROVEMENT – Course assessment data and course evaluations will be compiled by the program instructor. This data will be evaluated and analyzed by the advisory committee to help ensure continuous improvement. In addition, the college will utilize our Institutional Research Office to develop and deliver a post-job placement survey to both employers and students to identify skill gaps needed that may not have been included in the program. This information will help ensure the program is kept up to date and is meeting industry needs.

*Community colleges are not required to complete sections G, I, J, K, L, and P for **pilot** program requests.

SIGNATURE PAGE

Submitted by V. P. for
Academic Affairs**

Signature Date

Printed Name Title

Approved by the WCC Academic
Affairs Council

Signature Date

Printed Name Title

Approved by Program
Review Committee

Signature Date

Printed Name Title

**Signature by the Community College Vice President for Academic Affairs verifies that institutional curriculum approval processes have been completed and that the Community College Board of Trustees has approved this program request as per institutional policy.