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:**

   X New Program ___ Pilot Program ___ Revised Program

2. **Program Title**: Automotive Technology – Engine Management/Drivability

3. **Degree or Certificate to be awarded:**

   ___ Degree: ___ AA ___ AS ___ AAS ___ Other

   X Certificate

4. **Educational Pathway:**

   __ Energy __ Construction __ Hospitality X Technology

   __ Health Care __ Other

5. **Total number of credit hours**: 16

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) X 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? X No

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

The Automotive Technology Engine Management/Drivability program is designed as the first in a series 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 advance their skills in automotive repair.

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

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

- Examine engine operation, design, and service procedures.
- Demonstrate precision measuring, engine disassembly and reassembly.
- Explore the basic theory of electricity: how to read and interpret wiring diagrams and how to diagnose and repair individual electrical circuits on vehicles.
- Diagnose and repair various computerized and non-computerized ignition systems using ignition theory.
- Develop a comprehensive understanding of all electrical components and systems with emphasis on problem diagnosis.
- Diagnose automotive fuels and carburetion systems such a carburetor circuits and single, double, and four-barrel carburetors.
- Analyze emission control as it applies to the fuel system.
- Determine the nature of fuel and emission system problems leading to air pollutants from automobiles.
- Analyze and troubleshoot fuel and emission systems.

2. Program Layout by Semester:

Course	Title	Credits
AUTO 1510	Engine System Fundamentals	4
AUTO 1765	Automotive Electrical	5
AUTO 2560	Automotive Ignitions Systems	3
AUTO 1600	Fuel Systems I	4
	Semester Credits	**16**
	Total Credits	**16**

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:**

   X No new prefixes ___ Suggested level of instruction

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

   with UW (transfer) ___ Yes ___ No X Not Applicable

   or WCCC (career technical) ___ Yes ___ No X 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. The Automotive Repair Program also meets with members of the community, including automotive repair contractors, previous students, and maintenance personnel. These local community and industry partnerships have indicated that there is a shortage of workers. LCCC has created a two-certificate 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 for automotive body repair technicians is estimated to increase between 2012 and 2022. Similarly, the estimated need in Wyoming and surrounding areas is also projected to increase.

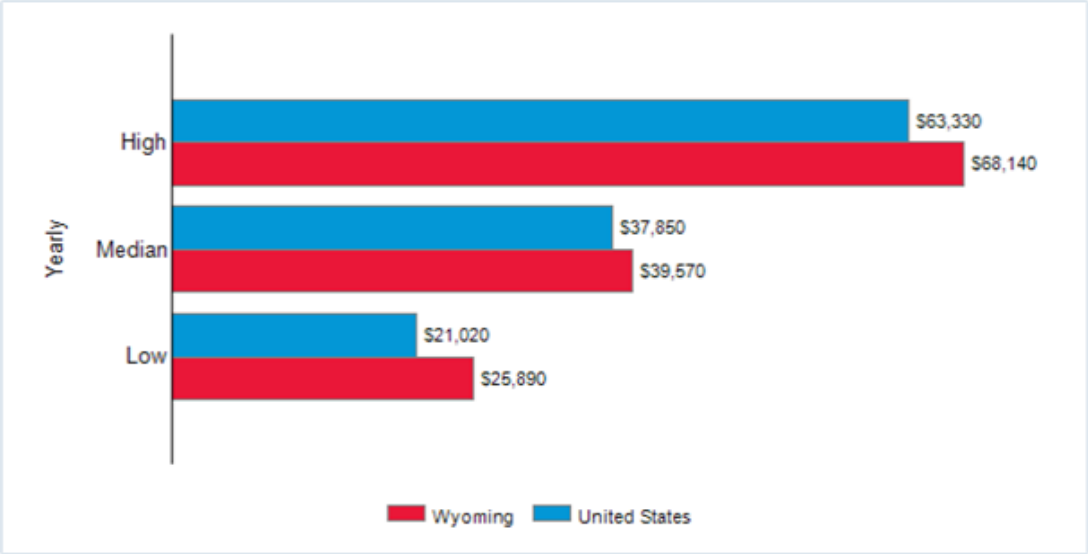
1. State and National Trends

United States	**Employment**		**Percent Change**	Projected Annual Job Openings
	2012	**2022**		
Automotive Specialty Technician	701,100	761,500	+9%	23,760
Wyoming	**Employment**		**Percent Change**	Projected Annual Job Openings
	2012	**2022**		
Automotive Specialty Technician	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:

The LCCC Automotive Repair Program anticipates targeting several different groups within the community, including workers 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 15 Year Three

In the past, many students would enter the training program and gain the skills needed without completing the certificate or degree. By reorganizing the training program into certificates that can build on each other, it offers the opportunity for students to complete an initial skill set that offers employment, and then to return for skill enhancements with the second tier of training later as they life circumstances allow. This strategy gives students an increased opportunity for success in their new career by offering incremental completion points.

K.* Student recruitment and program marketing strategies 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 LCCC. 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. We will work closely with our admissions staff on specific recruitment strategies.

In addition, a full-marketing campaign, if needed, will be designed for this program that would include website, 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.

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 AAS, 64 CH	Automotive Technology Certificate, 39 CH Automotive Technology AAS, 65 CH	N/A	Automotive Technology Certificate, 33 CH Automotive Technology AAS, 64-67 CH	N/A	N/A	Automotive Technology Certificate, 39 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 committee members contribute to the design of the proposed program. Specifically, personnel from Spradley-Barr and Cowboy Dodge 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: Engine Management/ Drivability Certificate, thereby increasing the number of post-secondary education certificates in Wyoming. In addition, the program supports high demand and high pay occupations which improve the quality of life for our students and the clients who will be served by their skills.

DIVERSIFIED ECONOMY – This program develops the changing skills required for energy-related industries. Many of the fundamental skills developed through the automotive repair and mechanical and safety courses are relevant across other industries.

WORKFORCE DEVELOPMENT – We developed the automotive repair program curriculum from nationally recognized industry standards and input from the LCCC Program Advisory Committee. We selected

courses that respond to current and emerging technologies in the industry. The program will also ensure LCCC students will be prepared for starting their ASE certification after completing all coursework.

EFFICIENT SYSTEMS – Career pathways coordinators are working closely with the automotive technology 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 into the workforce.

ACCOUNTABILITY and IMPROVEMENT – Course assessment data and course evaluations will be compiled by the program instructors on a semester and annual basis. This data will be evaluated and analyzed by the advisory committee to help ensure continuous improvement. In addition, LCCC will utilize our Institutional Research Office to develop and deliver a post-job placement survey for both employers and students to identify any skill gaps within the program. This information will help ensure the program remains current and meets 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.