Chapter 5: Program Initiatives to Improve Performance

Unit: **Automotive Technology**
Initiative Title: **New Equipment/ Oscilloscope** **Division Priority: 25**

Describe Initiative

Why do it?

There is a prodigious demand for highly skilled automotive diagnostic technicians in the auto repair industry at this time, and for the foreseeable future. Most auto repair businesses even though they may not be actively seeking technicians will quickly take advantage of any opportunity to hire people with these skills. Diagnostic technicians earn the highest pay and are the most highly respected in the automotive repair industry. Skill in the use of this equipment is the hallmark of this elite group. By providing this training we will greatly increase the employability and earning capacity of our students. This will benefit our students, their employers, our school and our community.

What will the product of this initiative be?

The ultimate product of this initiative will be students graduating from our Automotive Technology program with the skills most in demand in our industry. This should result in increased enrollment demand and increased demand from area employers for our students. Success in this endeavor can only elevate the image of our students, our school, and our industry.

What is the need or intended use?

This request will provide for the purchase of four new state-of-the-art high-speed lab scopes for use in testing and diagnosis of the myriad of electrical and electronic systems on modern high tech automobiles. Our present automotive lab scopes are outdated and obsolete by today's standards. We plan to purchase industrial type lab scopes and teach our students to truly understand the operation of systems and components they are working with rather than blindly using menu driven "automotive" versions. This approach will teach students the high level diagnostic skills demanded by our industry and also eliminate frequent equipment obsolescence.

Is it feasible?

This initiative is one that we have been trying to accomplish for the past several years but it has been infeasible due solely to lack of funding. Faculty has been trained in the use of this type of equipment and it could easily be incorporated into our curriculum with only very minor changes. The

feasibility or infeasibility of this initiative is simply a matter of funding. If the funding can be obtained this formerly infeasible initiative would immediately become 100% feasible.

What would be the campus location of this request/project?
Building 9 – Room 103

How many students (per year) will benefit? **135-150**

How will students benefit?

Students completing their Automotive Technology degree at LCC will have the skills most in demand in the auto repair industry. This will enhance their employability and make it possible for them to advance rapidly in their field. These skills will also vastly increase the earning potential of our graduates.

Describe the resources needed:

This purchase will consist of two each of two different popular major brands (Tektronix and Fluke) of industrial lab scopes at a total cost of $15,000. This equipment will replace obsolete and outdated present equipment.

We plan to purchase industrial type lab scopes (used in the power distribution, communications, computer, and electronics industries) and teach our students to truly understand the operation of systems and components they are working with rather than blindly using menu driven "automotive" versions. This approach will teach students the high level diagnostic skills demanded by our industry and also eliminate frequent equipment obsolescence.

2 Tektronix THS730A Lab Scopes @ $3,750=$7,500
2 Fluke 199C/003S Lab Scopes @ $3,750=$7,500

List the possible funding sources:

Perkins grant.

Can this project be partially funded?

Due to our current and recent enrollment levels and reduced lab hours available, we need a minimum of two of each of these lab scopes to prevent bottlenecks in our lab work, however we could purchase one of each unit. While this would not be a completely satisfactory situation it would put us in far better conformity with industry standards that we are at present and reduce the cost to $7,500.

If so, what minimum cost? **$7500.00**

Provide ORG & PROG codes: **611300 112000**

How does this project articulate with the college's vision, mission & goals and contribute toward meeting the President's/Board's approved goals?

Providing state-of-the-art diagnostic equipment in the lab is very important in providing a quality-learning environment for students. Training students with this equipment enables them to be better prepared for the employment they will be seeking. This is beneficial to students, to employers, and to the community.

If funding source could be TACT funds, complete the following:

Category of request:

- ☐ Maintain existing technology
- ☐ Increase student access to technology
- ☐ New technology

How does this request fit in with other unit or college technology plans?

Cost breakdown, including any unit resources being applied to the project (i.e. hardware, software, wiring, installation costs; timesheet staffing, licensing, other)

If funding source could be Carl Perkins Funds, complete the following:

What evidence do you have that shows special populations (disabled, economically disadvantaged, single parent, displace homemaker, academically disadvantaged and limited English proficiency) have access to your programs?

Eighteen percent of our Automotive Technology students are women, although this is a nontraditional field for them. Some of these women are single parents. Women who have completed our program in the past have become successful technicians. Since women who pursue careers in this field often become some of the best technicians in the industry, we encourage any who have an interest. We try to team each one with one of our most dedicated male students in the lab and have seen very positive results. Many of the students in our programs are economically disadvantaged and several are physically challenged and making career changes due to work related injuries. We refer students to all appropriate agencies (including LCC counseling staff) that may be able to assist them. We encourage them to stay in school if at all possible.

How does this request fit in with at least two of the Carl Perkins related goals (listed separately)?

Goal # I. B. Strengthening vocational & technical components of programs to ensure learning in vocational & technical subjects.

Providing state-of-the art diagnostic and testing equipment in the lab will enable students to develop the high level of skill in diagnosis of various automotive electrical and electronic systems that is much in demand in our industry. Using this equipment enhances students understanding of the operating principals of modern automotive electronic systems. This equipment will also permit instructors to introduce defects into automotive electronic systems for the students to diagnose and repair, providing real-world hands-on experience in troubleshooting and service of high tech automobile electronics. In addition to Electrical and Electronic Systems and Engine Performance classes, this equipment can be utilized for diagnosing various automotive components in Brakes, Heating, Ventilation and Air Conditioning Systems, and Automatic Transmissions classes.

Goal # III. Promote & prepare students for nontraditional training & employment.

Modern high tech diagnostic equipment is easier to use than ever before. This makes our Automotive Technology program more appealing to women who account for eighteen percent of our total enrollment, as well as students with disabilities who also comprise a significant portion of our student population.

Describe how this project might show collaboration with Lane County high schools.

The installation of modern high tech equipment will make our program much more appealing to prospective students. Our program has recently upgraded its articulation agreements with area high schools. This equipment will be available to high school students taking evening classes in this program and to assist visiting high school classes.