**Executive Summary**

(After completing the questions on the next few pages, please replace this area with a written executive summary of the questions that follow, including your data analysis, findings, action plan, and improvements you have already made. This will be the top sheet of your report. This summary should be at least a paragraph, and can definitely be longer if desired.)

The Automotive faculty understands the value of program level assessment in gathering information about student learning in order to identify ways to strengthen the learning opportunities for our students. Although we are satisfied with the PLO pass rate of 80% to 89%, the program changes which have been made since the last review cycle and the course updates, which will be completed this year, will hopefully improve on these results. Also, an in depth analysis of individual CLO assessment results would indicate in which courses the pass rate was lowest and therefore provide better information as to where improvements could be made. The automotive program is currently expanding by offering new courses and additional sections of existing courses and would benefit from the addition of another full-time faculty.

**Faculty Included in the Preparation and Sharing of this Report:**

(Please replace this area with the names of all faculty that helped to prepare and provide input on this report. This includes faculty who were parts of draft discussions and conversations. Ideally, it is all faculty representing the core disciplines making up the degree or certificate.)

Gerald Wray, John Peterson, John Davis, Deven Chew, Leonard Corgait.

**Please provide a brief and cogent narrative in response to each of the following questions.**

1. Provide a quantitative analysis for each PLO your CLOs inform. Provide the total number of students who passed/total number of students assessed in each PLO column *and* the corresponding PLO passing rate as an aggregated percentage*.*

**AWARD (and corresponding PLO) Students Passed/Assessed TOTAL RATE**

Certificate of Achievement: Automotive Technician

1. *Demonstrate compliance with current automotive industry safety*  12/15 80%

*and environmental standards*

*2. Perform maintenance and repair operations in accordance with ASE standards.* 24/30 80%

Certificate of Achievement: Automotive Maintenance

1. *Demonstrate compliance with current automotive industry safety and 12/15 80%*

*environmental standards.*

*2. Perform maintenance and repair operations in accordance with ASE standards. 24/30 80%*

A.S. Degree: Automotive Technology

1. *Demonstrate compliance with current automotive industry safety and environmental 40/45 89%*

*standards.*

*2. Perform maintenance and repair operations in accordance with ASE standards. 24/30 80%*

1. Reflect on, consider and analyze the data you have. ***What does your CLO data tell you about how your students are achieving PLOs?*** *Be detailed, descriptive and analytical* in this qualitative assessment of each PLO in relation to your CLO data. **Are your results satisfactory?**

The PLOs for the period of assessment reflect a success rate of 80% to 89% for the students assessed during this time. This would indicate a satisfactory achievement of the learning outcomes for both the certificates and the AS degree. All three programs consist of courses which are aligned to NATEF National Automotive Technicians Education Foundation industry standards, which are a national standard, set for automotive technicians. Students in the programs take course options in the 9 ASE Automotive Service Excellence areas to complete the certificates plus the MJC general education requirements to complete the AS degree. The courses are designed with specific outcomes for each area of study and provide the student with the knowledge and skills necessary to achieve the outcomes. Hands on and practical examinations, as well as written examinations are used in each course in order to assess the skills and knowledge gained. Assessment includes task lists provided by NATEF which are used to test students for both knowledge and practical ability in achieving the outcome. Automotive course and program outcomes place emphasis on what a student can actually do with the knowledge they have received rather than just on what they know. As the CLOs are written to support and align with the individual PLOs, successful achievement of the outcomes at course level provides for successful completion at program level.

1. Your department and the college should be making improvements based on student learning outcomes assessment, and we need to continue to document and share the improvements and progress you have already made. Did you make any changes in your CLO or PLO statements or analysis during the last cycle or recently? Did you receive funding for resources requests that were aimed to improve assessment results? Did you make any improvements in the areas of teaching and instruction processes, your courses, or your program? *Please explain your accomplishments and provide details about your efforts.*

As a result of a pilot Automotive PLO assessment in spring 2012 we identified a few areas of concern that needed to be addressed;

Firstly, the current course structure of required versus elective classes made it difficult to predict what CLOs students would be able to do. For example, a student, depending on elective choices, could complete the AS degree program with strong automotive diagnostic skills and weak underbody skills whilst others could have strong underbody skills and weaker diagnostic skills. This lead to an unpredictable mix of students completing based on what courses they elect to enroll in.

Secondly, although approximately 80% of CLOs were able to be mapped to the PLO statements for the certificate programs, the requirement and elective structure made predicting student PLO attainment difficult.

In an attempt to address these concerns we have revised the certificate and degree structure by replacing the current two certificates and one AS degree with four certificates and one AS degree. These changes will allow students to narrow their focus on specific areas of automotive repair and maintenance and provide a more predictable series of courses for each program area. Courses from other disciplines, e.g. Machine tool technology and Electrical have been removed from the list of required courses and replaced with two new automotive specific courses namely AUTEC 200 Automotive management and AUTEC 211 Introduction to Alternative Fuels. As employment improves in the automotive industry trends suggest that students take a number of courses to gain enough skills to get a job in the industry and then struggle to complete a program whilst working full-time. Unfortunately, although the new certificate and degree structure has been approved by the curriculum committee in fall 2012, we are still awaiting approval from the state to implement these changes.

**Action Plan.** Based on the assessments and analysis you have provided, please consider what changes or improvements you would like to make, which might include updating your CLO statements, modifying course outlines, rethinking instruction efforts, using different assessment instruments, asking for additional resources to improve assessment results, etc. ***Based on the analysis, provide an action plan for improvement that draws on your assessment results and efforts.***

Although most of the course outlines were updated in by the curriculum process in fall 2012 the following courses, which were not included in that review, will need to be updated this year.

AUTEC 311 Basic Automotive Systems

AUTEC 315 Engine Rebuilding

AUTEC 368 Automotive Electricity/Electronic systems 1

AUTEC 373 Clean Air Car Course

These course updates will include CLO updates and include performance based language and automotive skill sets which reflect the advances in the fields of automotive technology. Input from our advisory committee helps us to stay current with the evolving industry standards.

Although the pass rate in our programs is satisfactory the automotive faculty will continue to strive for improvement in our program learning outcomes. This will be achieved with an in-depth analysis of the CLOs which make up our programs. The summative date provided in this report does not indicate the level of success in individual CLOs and as such, does not provide data on where improvements could be made. This can only be achieved at the course level.

Resource requests are included in the action plans for CLOs and in program review.