Program Review Report

Yuba Community College District

YC - Automotive Technology Program Recommendations

Year of Review: 2013-2014

Type of Review: Annual Update

Executive Summary (Include a list of team members): Current Full-time Instructors are: Michael Morse, Don Schumacher, and Phillip Milks.
The 37 active classes in the Automotive Program remain full but the program does not have sufficient resources for consumables, updated software, purchase of new hand tools and maintenance of existing equipment. Our materials Jobber has been purchased by FinishMaster. Due to purchase the program has had to change it's waterborne paint line to RM products by BASF. The Onyx line was installed at the beginning of the Fall semester 2011. The new Paint Line has warranty requirements that must be followed. Instructional toolroom positions for Automotive Technology and the Auto Body program have not been refilled or hired. Students are having to wait for tools or are trying to find them themselves leading to lost tools, theft, lack of proper maintenance and diminished tool life.

The Autobody program classes remain full but the students are not able to complete all of their assigned tasks due to a lack of funding for the program. Students currently enrolled in AT-77, Autobody Refinishing are unable to use any of the refinish materials due to the high cost of the materials and a sever cut in funding to the program. Previous goals indentified in the program review have not been met at this time. The fresh air breathing systems for compliance with EPA Rule 6h have not been installed in the booths but have been ordered. Warranty requirements with BASF have not been met but the spray guns have been ordered. The tool room continues to be unattended thus leaving YCCD property at risk of theft. The computers that were purchased for the computer lab have not been connected to the internet and the free estimating software donated for one year has now timed out. For the Autobody Program to move forward sufficient resources are required to purchase updated software, training aides, materials, tools, spray booth repair and filtration needs, industry organization memberships and facility improvement. The resources needed break down as follows, updated software for chief measuring systems, mitchell on demand, CCC estimating software $3500.00. Training aides such as individual fenders for students to work on $2400.00 a semester. Refinish materials $2500.00 a semester. Replacement and repair of hand tools $2000.00 a year. Welding gas and consumables for TIG and MIG welders $500.00 a year. Spray booth filters and repair to comply with Feather River Air Quality $2500.00 a year. $4000.00 for a project vehicle to be used in the newly created AT-78a and AT-78b classes.

Program Description : Do students have access to curriculum-specific and/or program-specific support services? If so, describe this service(s). If not, explain why.
Students hDo students have access to curriculum-specific and/or program-specific support services? If so, describe this service(s). If not, explain why.
The students have access to EOP&s and DSPS. The students can use the Tutoring center to help them with their assignments.

ave access to curriculum-specific and program-specific support services. Additional support is available in the lab through student tutors. Students also have support available through The Associated Student Auto Club for tool purchases, automotive safety shop wear, and individualized tutoring assistance. In addition, additional lab time is available as needed.

If services are available, how do they demonstrate an increase in student success?
Student success is demonstrated with support services such as student mentoring process which allows students to complete lab assignments effectively as well as preparation for industry automotive certification tests. It is the goal of the automotive department to have every student complete one or more certification test.

How is current and previous program review data used to refine and improve program or department practices?
Previous program review data is evaluated to identify areas which need additional resources and instructional modifications.

If services are available, how do they demonstrate an increase in student success?
Using DSPS our programs have had many hearing impaired students that have successfully completed courses. EOP&S has given many students the resources needed to attend Yuba College and complete The Auto Body Program.

How is current and previous program review data used to refine and improve program or department practices?
Using the AT-70 SLO assessment 92% of the students were able to perform the task related to the assembly and use of oxyacetylene welding equipment. Using this information I will collaborate with welding on how to improve this number.

Industry Trends and Program Data Analysis :

How do program or department goals align with the education, diversity, How do program or department goals align with the education, diversity, demographic, and workforce needs of local communities?
In 2010 the median pay was $37,580 or $18.07 dollars an hour. One of the goals is to provide the local community with a trained workforce. The expected rate of growth for the Auto Body industry is 19% between 2010-2020. This rate is 5% higher than all other occupations.

How is your program or department direction driven by empirical data?
As with industry training, the students are given a pre and post test for each course. Using this information along with the industry needs the Auto Body program adjusts it's curriculum to fulfill those needs. If new courses are needed for new technologies we develop those courses.

demographic, and workforce needs of local communities?
The Automotive Department has an advisory committee consisting of professionals in the field who actively identify and define goals for the department in order to ensure alignment with industry, diversity, demographic and workforce needs of the local communities.

How is your program or department direction driven by empirical data?
All instructors in the Automotive Department participate in annual summer Train-the-Trainer programs as well as bi-annual conferences with industry professionals, equipment manufacturers, government agencies and other educators to stay current with industry technology.

Curriculum & SLO Assessment Summary :

What has your program or department done to improve completion of degrees, certificates, or transfers? What are your future plans?
The department interacts closely with counselors, students and industry to prWhat has your program or department done to improve completion of degrees, certificates, or transfers? What are your future plans?
The Auto Body program has added new classes that greatly improve the students ability to achieve the certificates that are offered. These classes provide the student more time to practice and refine the skills needed to be successful in the industry. Future plans involve developing an academy style training environment along with apprenticeships at local dealerships.

What has your program or department done to improve completion of degrees, certificates, or transfers? What are your future plans?
The Auto Body program has added new classes that greatly improve the students ability to achieve the certificates that are offered. These classes provide the student more time to practice and refine the skills needed to be successful in the industry. Future plans involve developing an academy style training environment along with apprenticeships at local dealerships.

Do you have any courses, certificates, or degrees that should be in-activated or expanded? If yes, please identify and justify your recommendations with data.
No

Do all of your courses have current CORs? If not, what steps are you taking to ensure compliance?
Yes

If applicable, how are teaching methodologies in your program or department assessed?
YCFA/District agreements require regular evaluation of full and part time faculty. Once the evaluations are completed faculty discuss the student surveys and work to develop new methodologies.

If applicable, how are the results of the assessment used to support, improve, and/or expand your current teaching methodologies?
If a new tool or training aid is identified as needed the Automotive program works to budget money for it.

If your program or department uses a DE modality to support instruction, how are you evaluating the effectiveness of that instruction?

n/a

If your department offers DE courses, what support services does it provide for DE students? What can be done to improve support services for these students?
n/a

How is your program or department applying sound principles of learning and teaching theory to its curriculum?
The Automotive Technology staff regularly discusses our teaching practices. This helps us develop, maintain and change our curriculum in accordance with industry standards. The Automotive Technology staff attend many seminars and conferences that provide training in best instructional practices for our industry.

Which CSLOs (course student learning outcomes) and PLOs (Program learning outcomes) were assessed within the last year?
The Auto Body program assessed the AT-70 CSLO. The PLO's were on the CTE division meeting agenda as we are not sure of the assessment method.

For each of the above, how did the assessment data influence program, department and/or course improvement?
With a 92% completion rate in AT-70 for oxyacetylene equipment assembly and usage, the Auto Body program will add more time in that section of the course to develop the skills needed for a 100% completion rate.

ovide certification and encourage a career path which includes an Associate Degree as well as transfer to a four-year institution.

Do you have any courses, certificates, or degrees that should be in-activated or expanded? If yes, please identify and justify your recommendations with data.
We have a large number of courses which should be expanded, however, we are limited due to facility size and budget constraints. There have been significant changes in the automotive industry with the advent of green technology and resources are not adequately keeping current with technology.

Do all of your courses have current CORs? If not, what steps are you taking to ensure compliance?
All CORs were updated October, 2012 and are current.

If applicable, how are teaching methodologies in your program or department assessed?
Teaching methodologies in our program are assessed by State, National, and Professional Certification agencies which govern automotive technician licensing and certification standards.

If applicable, how are the results of the assessment used to support, improve, and/or expand your current teaching methodologies?
The program updates teaching methodologies as soon as they are identified in order to maintain program certification and compliance.

If your program or department uses a DE modality to support instruction, how are you evaluating the effectiveness of that instruction?
N/A

If your department offers DE courses, what support services does it provide for DE students? What can be done to improve support services for these students?
N/A

How is your program or department applying sound principles of learning and teaching theory to its curriculum?
Our application is 70% lab and 30% classroom instruction and the entire curriculum is competency-based.
Which CSLOs (course student learning outcomes) and PLOs (Program learning outcomes) were assessed within the last year?
Each CSLO and PLO was evaluated within the last year.

For each of the above, how did the assessment data influence program, department and/or course improvement?
There was no impact on the program or department as this data is assessed continuously in order to maintain program compliance and certification with State and Federal regulations.

Future Goals and Program Direction:

Future Goals and Program Direction
K27. Based on Program Review, what are your plans for future department/program improvements?How do program or department goals align with stated Yuba College goals?

The Auto Body program goals are simple. Use evidence based assessments to measure student success. These assessments include using SLO's, comprehensive testing along with task based lab instruction. With the extremely limited resources available to the program focus is placed on what employers are demanding of entry level employees. With this in mind the program develops it's courses to fit the demand and this allows the students to complete their goals in a timely manner. The program is constantly being evaluated to fit theses needs and keep the students engaged and provide them with a quality training experience.

Based on Program Review, what are your plans for future department/program improvements?

The Auto Body program must move away from filling the shop with long term projects. Unfortunately this is the only way the program generates extra funds to run the program. Restoring old cars and doing complete paint jobs is not the industry norm and requires more time to complete than most student are in the program. This means that most students who enter the program are unable to finish a project. The Auto Body program needs to have the resources to purchase hoods and fenders that can be used by students to complete the various tasks needed to repair and refinish these pieces in a timely manner. The industry requires quick and timely turn- around of customer vehicles and that is the training needed for today's students.

Continued participation in Train the Trainer classes, California Automotive Teacher's Association, NAFTC (National Alternative Fuel Training Consortium), The Automotive Advisory Committee, ASE (Automotive Service Excellence), B.A.R. (Bureau of Automotive Repair) is essential for staying current with technological advances in the field and provides students with state-of-the-art training.

The following equipment is necessary to provide to continue to provide for student success and maintain program certification with ASE and NATEF:
- A new computerized wheel alignment system
- Hybrid electric vehicle diagnostic equipment
- B.A.R. emission test analyzer smog machine
- A variety of small engine models and diagnostic equipment
- Light truck diesel engines and diagnostic equipment
- Computerized paint mixing station
- Upgraded heating and ventilation for the paint booth

Additional staffing in the form of additional Administrative Assistant support, one full-time and one part-time tool room assistant, as well as additional instructor hours either in the form of an additional full-time instructor or additional funding for adjunct instructors in the evening program.

A Future Goal of the Automotive Technology/Auto Body program is to move to a new facility off the Marysville campus and into a Career Tech Ed facility with Welding Technology.

The Auto Body program needs to become compliant with EPA Rule 6H. This will require adding Fresh Air Breathing systems to the spray booths along with Fresh Air Hoods. New Spray guns will have to be purchased to comply with BASF warranty requirements. Advisory Committee members and Industry Professionals are trending toward ASE Certification over I-CAR . Another goal is to move away from large projects (complete vehicle paint jobs) to small piece instruction such as individual fender repair. Each student will be able to complete a project quickly and create more room in the shop for instruction. This will require resources to purchase parts and materials.

-Expand diesel training and smog technician programs;
-Maintain NATEF, ASE, NAFTC and CATT program certifications;
-The smog/emissions control program updates are driven by state changes and equipment/training must be updated regularly to maintain certification. New emission testing equipment must be purchased for the 2013 academic year.
-Update the four wheel alignment measurement system.
-Purchase and/or obtain additional donations of new automatic transmissions and manuals for student inspection, teardown and rebuild.

Course Content and Statistical Analysis: F19. To what degree does your program or department have adequate and appropriate equipment (other equipment, not computers or IT related).To what degree does your program or department have adequate and appropriate technology to support effective instruction (e.g., software, computers, and information technology)?
The Auto Body program does not have adequate support in these areas. After almost a year of waiting for the classroom computers purchased(2011-2012) using Perkins Funding, the free Collision Estimating software(CCC) donated to the program had timed out due to a lack of urgency for the installation of the computers. The cost of purchasing this software(CCC) along with Mitchell on demand, update of the Chief Measuring System software(last update 5 years ago), licenses to use the I-CAR enhanced instructional software will cost approximately $5400.00 annually. Impossible to do on a $6800 yearly budget for the entire program. The students are not receiving the technological education that the Course Catalog and the Goals of the College promise them. With the ever changing technology of today's automobiles the Auto Body technician must keep up with all the advanced systems built into them. It's just not about pulling dents.

To what degree does your program or department have adequate and appropriate equipment (other equipment, not computers or IT related).

The Auto body program is lacking in this area also. An extremely limited budget does not allow for the replacement of stolen or broken tools and test equipment. Students are often standing and waiting for another to finish with a tool so they can use it. Basic hand tools such as screw drivers and ratchets are at a premium. I buy what I can afford to replace out of my own pocket but that does not keep up with the replacement needs. Many new tools are needed, Paint Spraying simulators would greatly enhance the students ability to practice without using valuable refinish material, cost $29,000. With this simulator the College would be emitting far less VOC's thus reducing the schools carbon footprint. For the Frame class a self centering gauge set is needed along with Honda and Toyota clamp brackets. Cost $2500.00. For the frame class money should be budgeted yearly for the purchase and parts to repair a collision damaged vehicle. The students need real live work to develop their skills in this area. Once the vehicle is repaired it can be sold, proceeds used to purchase another vehicle. Money needs to be allocated to purchasing sheet metal parts that can be used in the spray booths. The spray booths while adequate need major upkeep every year. Filters have not been replaced in 4 years. Air quality wants them changed yearly. The Air Compressor has not been serviced in 2 years. Failure of this compressor could cost upwards of $20,000.

To what degree does your program or department have adequate facilities to support effective instruction? Please explain.
The overall building is adequate in structure. The facility needs to be painted inside and out. Inside paint should reflect colors and patterns used in dealerships so the students have the feel of working in such a facility. Electric door openers need to be installed on the roll up doors. The chain driven mechanisms are very dangerous and the chains get stuck quite often requiring ladders and pry bars to fix the problem. Heating and cooling of the main shop is a problem. Effective instruction is hampered when the students are cold and materials such as body fillers do not cure.

The automotive department has basic equipment to support instruction, however, additional equipment and facilities are needed to continue to provide for rapidly changing technology and industry standards. The following equipment is necessary to provide for student success and maintain program certification with ASE and NATEF:
- A new computerized wheel alignment system
- Hybrid electric vehicle diagnostic equipment
- B.A.R. emission test analyzer smog machine
- A variety of small engine models and diagnostic equipment
- Light truck diesel engines and diagnostic equipment
- Computerized paint mixing station
- Upgraded heating and ventilation for the paint booth

Facilities
G20. To what degree does your program or department have adequate facilities to support effective instruction? Please explain.
The automotive department barely has adequate space to provide for effective instruction. The program is impacted by surrounding buildings and is in need of relocation to a larger building. Ideally, future plans would be for a CTE facility that would house automotive, autobody and welding with a centralized toolroom.

Faculty
H21. Does this program or department have adequate full-time faculty to support a high quality program? Please explain.

The program could use an immediate toolroom assistant for night courses and could use an additional instructor.

Staffing
I22. Does this program have adequate technical/clerical staff to support a high quality program?

The CTE areas have only ½ time Administrative Assistant support and are in need of a full time Administrative Assistant.

The spray booths while adequate need major upkeep every year. Filters have not been replaced in 4 years. Air quality wants them changed yearly. The Air Compressor has not been serviced in 2 years. Failure of this compressor could cost upwards of $20,000. Does this program or department have adequate full-time faculty to support a high quality program? Please explain.

ASE certification requires 1080 hrs of instruction. Having one Full time instructor and no part time these requirements can't be met. The industry is adopting more ASE certifications to go along with I-CAR. Employers are looking for more ASE certifications. The program needs two full time instructors to meet this need.

Does this program have adequate technical/clerical staff to support a high quality program?

The Clerical staff for our department is fantastic. Jackie Harryman handles all our requests quickly and efficiently. The Auto Body program needs a full time Instructional aid to help with shop issues and tool room efficiency. As an instructor it is very diIn the last year, what professional development or networking has faculty and/or staff participated in?

In the last year the Auto Body program faculty has attended profession development training from NAFTC in Houston, multiple training seminars through the CAT Conferences at Cerritos College, De Anza College and just recently at Santa Barbara City College. The subjects include advanced Hybrid training, Hunter Alignment, Chief Frame rack, BASF Refinishing. The Faculty has also met with their advisory committees to get feed- back on what new industry trends and equipment is needed for the program.

fficult to be watching the tool room and delivering the quality instruction the How did these activities contribute to student success? (include supportive data)

Student success is directly affected by faculty attending industry specific training. Example, BASF continually refines their procedures for applying their automotive refinishing products. Attending these trainings allows the Auto Body faculty to learn those techniques and transfer them directly to the student through lecture and hands on lab work.

How does professional development in your program or department support basic skills students and foster inclusive classroom environments that value diversity?

The Auto Body program uses many different student centered activities complimented by lecture and study material. The student centered activities allows all the students to interact with others and problem solve while learning the skills needed to be successful in industry The Auto Body program will asses it's classes by using pre and post test next year to help determine the quantitative data needed for next years review.

What Staff Development activities would you suggest be offered in the next year that would enhance your program?

Understanding how humidity effects the dry time for waterborne base coats.

students deserve. This can result in dangerous situations for the students.

Faculty and Staff Support and Professional Development
J23. In the last year, what professional development or networking has faculty and/or staff participated in?

In the last year Instructors have participated in Train the Trainer classes, California Automotive Teacher's Association, NAFTC (National Alternative Fuel Training Consortium), The Automotive Advisory Committee, ASE (Automotive Service Excellence), B.A.R. (Bureau of Automotive Repair).

J24. How did these activities contribute to student success? (include supportive data)
These activities provided training on new technology which in turn, provides students with comprehensive training on the latest technology and methods of delivery.

J25. How does professional development in your program or department support basic skills students and foster inclusive classroom environments that value diversity?

Instructor involvement Automotive Teacher's Association, NAFTC (National Alternative Fuel Training Consortium), The Automotive Advisory Committee, ASE (Automotive Service Excellence), B.A.R. (Bureau of Automotive Repair) allows our diverse student population to be equipped for a competitive marketplace.

J26. What Staff Development activities would you suggest be offered in the next year that would enhance your program?

Staff Development activities applicable to the CTE areas are often more appropriately attained through outside agencies.

Are you ready to submit your final program review?: Yes