Assessment Report

Yuba Community College District

YC - Manufacturing & Welding Technology Program Recommendations

Year of Review: 2013-2014

Type of Review: Self-Study (4-year review)

Executive Summary (Include a list of team members): The Welding department has done research on the needs of employers in our area and nationally for the welders exiting our program. We want our students to be highly competitive on the local and national level. The Welding department has expanded and improved the equipment and offerings for our students to gain experience, but needs to continue to improve to meets the needs of an ever changing industry. The Manufacturing Program is in need of a full time instructor to meet the needs of industry and to give our students the experience in manufacturing that will ensure that they will be even more competitive. Yuba College is one of the only manufacturing programs left in Northern California.
As evidenced in the last educational master plan for Yuba College, the welding program has lost 3 of 4 full time instructors, but has seen an incredible transformation in offerings and the number of students.
The welding program also had the first ever articulated transfer between a Weld-Ed school and a four year institution, Weber State in Utah. Dan Turner also represented the college at the International Institute of Welding Conference in Denver, and also the International welding education conference in Germany. He was the only representative for an American College.

This program consists of 23 active courses and is staffed by only one full-time professor. We are lucky to have three additional adjuncts to offer courses so students can complete their certificates and degree programs within a two year period. It will soon be time to hire another full-time insturctor if we are going to expand into Agricultural Mechanics in the future.

Program Description : A1. Do students have access to curriculum-specific and/or program-specific support services? If so, describe this service(s). If not, explain why.
Students do not have access to tutoring services specifically for welding. There is a CTE counselor and WIA for the students, but not all students are aware of these services. Students are mentored and tutored by faculty and other students. All courses have current SLO's that are measured against national standards and outcomes.

A2. If services are available, how do they demonstrate an increase in student success?

Students have a constant person that they can communicate to and have a constant with the school which encourages them to continue with their education. The counselor also helps them with their educational goals and plans. Students are informed about local jobs which the instructors or other students are made aware of.

B3. How is current and previous program review data used to refine and improve program or department practices?
The Faculty of the welding and manufacturing departments participate in many training activities which expose them to trends in the welding and manufacturing industry; locally, state wide and nationally. They also present at many conferences and offer training to other instructors from other community colleges, universities and high schools. This helps to develop a network which helps to direct the programs. The students Learning Outcomes are evaluated yearly to insure that the classes meet the needs of the students in an ever changing industry.
The Welding and Manufacturing instructors work with local employers and businesses through an Advisory Committee and through local visits to ensure that our students are receiving an education that meets their needs for employment.

The Welding and Manufacturing Departments at Yuba College prepare students for entry into the workforce as welders and

operators. It continues to be a viable and lively program. The welding program has expanded to about 350 students a year in the program and has a need for expanding the Manufacturing Program which has been without a full time instructor for 4 years. Students need these courses to complete their degrees and certificates. The Welding department also has a need for another full time Welding instructor.

Curriculum & SLO Assessment Summary :

D6. What has your program or department done to improve completion of degrees, certificates, or transfers? What are your future plans?
The Welding and Manufacturing departments have developed articulations with bachelorette granting institutions such as the Weber State Welding Engineering program and the Chico State Sustainable Manufacturing departments to encourage student transfer. The Welding Manufacturing programs are developing scaffolding certificates that lattice together to help the students achieve their educational and skill development goals.

D7. 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.
Not currently

D8. Do all of your courses have current CORs? If not, what steps are you taking to ensure compliance?
Yes

D9. If applicable, how are teaching methodologies in your program or department assessed?
The teaching methodologies in the Welding and Manufacturing programs are assessed by the success of the students. If the students are gaining the necessary skills that are set forth by our advisory committee, the AWS standards and our SLO's, then the teaching methods are working. If the students are not achieving the necessary skills, then the teaching methodologies are examined by the staff and changed as needed. Students are also polled to continually monitor their satisfaction with the teaching and the program. These assist the faculty in addressing individual concerns and modify the teaching to enable all students to perform at a satisfactory level.

D10. If applicable, how are the results of the assessment used to support, improve, and/or expand your current teaching methodologies?
The assessments of the teaching methodology are used to address issues that are existent in the program. Some of these issues help to teach students with special needs or may be at risk of not completing their course of study. This also helps with diversity as not all students learn in the same manner.

D11. If your program or department uses a DE modality to support instruction, how are you evaluating the effectiveness of that instruction?
We currently use the portal

D12. 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

D13. How is your program or department applying sound principles of learning and teaching theory to its curriculum?
The Welding and Manufacturing programs attend many trainings that address best practices, teaching and learning principles and instruction methods. The welding faculty was part of the committee that developed the national Weld-Ed course on teaching welding. This course address teaching and learning method that assist the students in learning welding skills that they will use in their future.

The faulty of these programs also believe that all students learn differently and try to incorporate different teaching methods to address all student's needs. Faculty use lecture, videos, discussion, critical thinking, written excersises, laboratory assignments and etc. to help students to learn their skills.

D14. Which CSLOs (course student learning outcomes) and PLOs (Program learning outcomes) were assessed within the last year?
Weld 20, 22, 10, 12, 40, 85, 50 52, 62

D15. For each of the above, how did the assessment data influence program, department and/or course improvement?
New course outlines and schedules have been set up To better assist the students achieving success. We continue to perform what is working and helping the students.

The Welding program is meeting with thte SLO Committee to address the PLO's and seek clarification on them.

Industry Trends and Program Data Analysis :

C4. How do program or department goals align with the education, diversity, demographic, and workforce needs of local communities?
The Welding and Manufacturing Departments are in continual contact with local business to determine the training needs for the students. The instructors belong to the American Welding Society, Weld-Ed and other national organizations which help to ensure that the best practices and trends in training and industry.

C5. How is your program or department direction driven by empirical data?
The Welding and Manufacturing programs continue to attend conferences and shows to remain current with industry trends and needs of the industry. When new trends, equipment or welding/ manufacturing procedures that will fit into the Yuba College programs s have been identified, the faculty discuss and identify methods to introduce these trends into the educational programs at Yuba College.
Once these procedures and methods have been identified and introduced to the programs, then data is collected on the impact that it have on the success of the students. This data is then analyzed and changes are made as needed to help the students experience higher degrees of success. When the changes are made, then more data is collected about the improved impact of the changes.

According to a weld-Ed research summary, there is a need for 308,000 welders in the next five years nationally.

Future Goals and Program Direction:

K27. Based on Program Review, what are your plans for future department/program improvements?

The Program will continue to develop certificates for the students and encourage completion. The programs will continue to explore partnerships with manufacturers Currently partners with Weld-Ed, Hypertherm, and Kimberly Clark) to help our students train on industry standard equipment and needs of industry. The programs will continue to work with the advisory committees to meet the needs of local industry.

Yuba College Goals
E16. How do program or department goals align with stated Yuba College goals?

1. Foster a culture of evidence-informed decision making, including SLO development/assessment and other measures of student success.
The Welding and Manufacturing department utilize SLO's to help direct the education in the classes. The programs also listen to the advisory committee and local industry to address concerns they may have with the students they hire when they complete the program.
2. Prioritize and allocate resources based on existing and emerging community and student needs over those of individual projects or programs.
The Welding and Manufacturing programs evaluate the needs of the local employers and direct resources to these needs. They also attend trainings to determine the direction of industry trends and plan their resources accordingly.
3. Steward our institutional resources with increasing effectiveness and efficiency.
The welding and Manufacturing programs continually look for ways of efficiency and effectiveness. The welding program has replaced many power sources with inverter style that use a third less energy than transformer style power sources. These are also modern machines that the students will see when they enter the workforce.
4. Research and utilize effective modes of delivery for our courses and services.
The Instructors of these programs attend trainings and seminars that cover best practices of instruction in their prospective fields. They incorporate these methods into their classes. They have also been published addressing teaching methods and teach classes to other instructors.
5. Design our programs in such a way as to allow students to complete their educational goals in a timely manner.
The Welding program is exploring developing scaffolding certificates that culminate in a higher degree or certificate of training. They also encourage students to complete their associates degree and transfer to a four year college to achieve a higher degree.
6. Evaluate our programs, services and processes to ensure continuous quality improvement.
The Welding and Manufacturing programs are continually monitoring the local industry to ensure that we are maintaining the quality of student and employee that they desire.
7. Improve the quality of the student experience at all our campuses and centers.
The Welding Program has formed a Welding Club for its students. This has helped to ensure that the students are engaged in their college experience. The welding program has also started their Weld Academy Fast track which allow students to finish their course of study more quickly.
8. Develop partnerships to enhance educational resources and student opportunities.
The Welding Program has developed programs with Weld-Ed, Hypertherm, Kimberly Clark and is looking for more partnerships. The Welding instructor is also the Educational Chair for the AWS Sacramento Valley Section.
9. Exemplify educational excellence, fiscal responsibility, cultural awareness, and civic engagement for our communities and region.
The Welding program participates in local events such as the Early Morning Kiwanis CTE Scholarship fund raiser, high school visits, AWS Meetings, National trade shows and other events. They are continually looking for donations that with save money for the programs to use elsewhere for student success.

YCCD Board of Trustees Vision
E17. How does the program support the YCCD District Vision Statement? Specifically, how does the program meets the needs of our students and communities?
The vision of the Yuba Community College District Board of Trustees is to ensure student success by:
• Providing an innovative, world-class learning environment;

The Welding and Manufacturing programs are very innovative. The Welding program designs and build apparatuses to help the students learn real world skills. The welding program also hosts welding camps for local high school students and welding instructors for training. They have also purchased modern equipment that is on the cutting edge of industry.
• Building and maintaining an atmosphere of trust within the college district and with our communities;

The welding faculty participates on the academic senate and other committees that assist the college to maintain integrity. The welding and Manufacturing departments also participate in advisory committees for local high schools and for the college to foster communication and transparency.

• Developing and maintaining programs and facilities that best meet the needs of our students and communities;

The welding and Manufacturing programs keep their facilities clean and operational. They maintain their equipment and call service when the equipment is not operational.

• Stewarding resources strategically to meet the diverse needs of our communities and region;

As answered above, the Welding and Manufacturing programs maintain a feel of the pulse in industry and the community to help direct funds where needed.

• Providing educational, economic, cultural, and civic leadership for our communities and region.

The Welding instructor is the AWS Sacramento Valley Section Welding Education Chair.
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The Welding program is trying to expand the fabrication portion of the program and add an advanced welder operator program to meet the needs of an ever changing industry. We have listened to our advisory committee and participated in several symposiums on the needs of the welding industry and have seen several themes; fabrication, GTAW, blueprint reading, certification and experience with automated equipment.

Course Content and Statistical Analysis: What do we enter here?

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

Goal	Recommendations	Plan of Action & Budgetary Impact / Tasks	Status	Feedback & Follow-Up
Hire a full time Manufacturing instructor				

Goal	Recommendations	Plan of Action & Budgetary Impact / Tasks	Status	Feedback & Follow-Up

Goal	Recommendations	Plan of Action & Budgetary Impact / Tasks	Status	Feedback & Follow-Up
Hire a full time welding instructor				

Goal	Recommendations	Plan of Action & Budgetary Impact / Tasks	Status	Feedback & Follow-Up
Develop an ASME on compliant pipe welding program				

Goal	Recommendations	Plan of Action & Budgetary Impact / Tasks	Status	Feedback & Follow-Up
Develop a GTAW Pipe cert program				

Goal	Recommendations	Plan of Action & Budgetary Impact / Tasks	Status	Feedback & Follow-Up
Develop a Fabrication certificate				

Goal	Recommendations	Plan of Action & Budgetary Impact / Tasks	Status	Feedback & Follow-Up
Expand the ventilation system in the welding shops to improve student safety				

Goal	Recommendations	Plan of Action & Budgetary Impact / Tasks	Status	Feedback & Follow-Up
Create a one year certificate				

Goal	Recommendations	Plan of Action & Budgetary Impact / Tasks	Status	Feedback & Follow-Up
YC Goal 3 - Fix the electrical system in the building				

Goal	Recommendations	Plan of Action & Budgetary Impact / Tasks	Status	Feedback & Follow-Up
YC Goal 3 - E16. How do program or department goals align with stated Yuba College goals? 1. Foster a culture of evidence-informed decision making, including SLO				

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