

# Barstow Community College

# Instructional Program Review

PROGRAM:	Welding
Academic Year:	2013-2014 Date Submitted: Oct 2, 2013
	Ву:
Faculty Lead:	Ken Graham
Members:	Rick Bremen and Tom Pitard

- 1. Mission and Vision
- 2. Description and Overview
- 3. Program Data
- 4. Curriculum
- 5. Internal Factors
- 6. External Factors
- 7. Continuing Education and Professional Development
- 8. Prior Goals and Objectives
- 9. Action Plan: Goals/Objectives/Actions
- 10. Resources

# 1. Program Mission and Vision

#### A. Program Mission

The goal of the Barstow Community College welding department is to impart to the student welder the skills necessary to safely and competently weld, using various welding processes, for personal pursuits, to gain entry level welding employment in the local economy and/or obtain the Welding Certificate/Associate Science Degree in Welding.

**B. Program Vision** (Where would you like the Program to be three years from now?)

The Welding Department needs to actively encourage the student welders to be aware of the job market. To this end, over the next few years the department should develop good communications with potential employers in the area to establish listing for possible job offerings. Overall the Welding Department will continue to up with the changing technology in this industry.

C. Describe how mission and vision align with and contribute to the College's Mission and Vision

The Welding Program at BCC prepares the student with the basic skills necessary for a career in the welding field as well as providing learning opportunities giving the student the knowledge, skills, and certification necessary for success in this field and other endeavors.

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# 2. Program Description and Overview

Assume the reader does not know anything about the Program. Describe the Program, including—but not limited to—the following:

- A. Organization, including staffing and structure
- B. Who do you service (including Demographics)?
- C. What kind of services does your program provide?
- D. How do you provide them?

The Welding Department has 3 Adjunct Instructors teaching all welding processes as well as Blueprint Reading. Weld 50-55 and 57 classes are offered in the Spring and Fall Semesters: M/W from 3:00 pm to 5:15 pm, M/W from 6:00 pm to 8:15 pm, T/Th from 3:00 pm to 5:15 pm and T/Th from 6:00 pm to 8:15 pm. In the Fall Semester Weld 56 Blueprint Reading is offered on M/W from 6:00 pm to 8:15 pm.

The Welding Department services students from Barstow College, Barstow High School Silver Valley High School, Excelsior High School, as well as any other educational facilities in the Barstow area. Employers in the the area including Santa Fe Railroad, Union Pacific Railroad, US Marine Corps Logistics Base, Moly Corp-Mountain Pass, County of San Bernardino Industrial Maitenance Mechanic training program, and other local welding facilities and businesses.

Ft Irwin National Training Center, Southern Calif. Edison, Southwest Gas Co.,

All welding classes are reguired for the Welding Certificate and the Associate of Science degree in Welding.

st	As well, American Welding Society Certification in various welding processes is provided to students.  All welding classes are presented in both classroom and shop environment for hands on learning.							
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3. Prog	ram Data							
	RFORMANC							
Dis	cuss the pr	ogram's performance on the specific data i	tems listed below:					
1)	Full-time/I	Part-Time Faculty Ratio						
		y = 0/ Part-time faculty = 3 = 0:3 e faculty = 100% of the program's instructo	rs					
2)	Course Co	mpletion Rate						
	TRADITIONAL ONLINE							
	a) Full-tim		Not Applicable					
	b) Part-tim	ne: 178/244 73%	Not Applicable					
3)	Course Su	ccess/Retention Rate						
		TRADITIONAL	ONLINE					
	a) Full-tim	e: Not Applicable	Not Applicable					
	b) Part-tim	247/328 75% ne:	Not Applicable					
4)	WSCH/FTE	EF Ratio						
		TRADITIONAL	ONLINE					
	a) Full-tim	e: Not Applicable	Not Applicable					
		Not Applicable	Not Applicable					
	b) Part-tim	ne:						

5) Fill Rate					
a) Full-time:		TRADITIONAL		ONLINE Not Applicable	
		Not Applicable			
b) Part-t	ime:	1st Day	24.43%	Not Applicable	
		Census	22.09%		
		ЕОТ	19.54%		
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- B. Progress on Program Level Outcomes (PLOs) and Student Learning Outcomes
  - 1) Summarize the progress your program has made on program and/or course level SLO measures. (Include Outcome Statements in this summary.)

## **Program Learning Outcomes:**

- 1. Complete the Welding Certificate Program and/or obtain an Associate of Science Degree in Welding.
- 2. Weld, for personal pursuits using Oxy-Fuel Gas, Shielded Metal Are, Metallic Inert Gas, Tungsten Inert Gas, and other welding processes.
- 3. Demonstrate skills for entry level welding employment in the local economy.

**Progress Summary** – In 2012-2013, WELD course outlines of record were updated to accurately list the SLOs for each course taught in that academic year. All student learning outcomes were assessed for each course taught. We plan to continue to assess each class as it is taught.

2) Describe any program, course, and/or instructional changes made by your program as a result of the outcomes assessment process.

Revising the SLOs and course outlines of record has helped to align our specific areas of concern in the various welding processes, such as how the course objectives and methods of instruction relate, what's expected of the students and what they can expect from the course, and how they will be assessed.

3) Reflecting on the responses for #1 and #2 above, what will you implement for the next assessment cycle?

	Any nev	w SLOs will be placed on the course outlines when courses are taught or created.
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C. Sur	porting A	ssessment Data (See Handbook for additional information)
•	Provide a	a list of any additional measures (not included in 3.A.) that you have chosen to gauge your
	. •	's effectiveness (e.g.: transfers, degrees, certificates, satisfaction, student contacts, headcount, Perkin's data, etc.).
	Achieve	ement of AWS Welding processes certificates in areas of students interest upon
	comple	tion of courses in the Welding program.
2)	Summari	ize the results of these measures.
		ts can use these as a basis for job applications. These are certificates outside the
	Weldin	g Certificate Program from BCC.
3)	impleme	I you learn from your evaluation of these measures, and what improvements have you nted, or do you plan* to implement, as a result of your analysis of these measures? (*List urces required for planned implementation in #10: Resources.)
		re no changes at this time.
4)	Include Dobjective	OCP Program Assessment Benchmarks, providing analysis of data on long term goals and
	N/A	
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D. Two-Year Scheduling Plan

1) What is the program's Two-Year Scheduling Plan? What changes, if any, have been made since the last Program Review?

WELD A.S. (and Certificate) Two year plan follows the requirements as shown below:

Semester 1 (fall - even )

WELD 50,51,52,53,54,55,57,& 56

Semester 2 (spring - even )

WELD 50,51,52,53,54,55,57

Semester 3 (fall - odd )

WELD 50,51,52,53,54,55,57,& 56

Semester 4 (spring - odd )

WELD 50,51,52,53,54,55,57

# **Associate Of Science, Welding**

## **Major Core Requirements (21 units)**

WELD 50 Oxyacetylene Welding and Cutting 3

WELD 51 Shielded Metal ARC Welding 3

WELD 52 Position Welding (ARC Welding) 3

WELD 53 Soldering, Brazing, and Braze Welding 3

WELD 54 Gas Metal-ARC Welding 3

WELD 55 Gas Tungsten-ARC Welding 3

WELD 56 Blueprint Reading (Metal Trades) 3

Minimum Units Required in Major 21

**General Education Requirements 27** 

**Electives 12** 

# **Welding Certificate Of Achievement**

# **Required Courses Units**

WELD 50 Oxyacetylene Welding & Cutting 3

WELD 51 Shielded Metal Arc Welding & Cutting 3

WELD 52 Position Welding (Arc Welding) 3

WELD 53 Soldering, Brazing, & Braze Welding 3

WELD 54 Gas Metal – Arc Welding 3

WELD 55 Gas Tungsten - Arc Welding 3

WELD 56 Blueprint Reading (Metal Trades) 3

ENGLISH 50 -3

MATH 101 -3

CBIS -

## **Total Units Required 28**

2) How effective has the Two-Year Scheduling Plan been in meeting student needs and educational goals?

With the number of classes offered each semester students have been able complete both the AS degree in Welding and/or the Welding Certificate program in the two year time frame.

3) Reflecting on these results, what are the goals for the next assessment cycle?

To increase the number of students enrolled and completing the degree and certificate programs in Welding.

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#### 4. Curriculum

A. List any new courses or program changes since the last program review. Be sure to include any newly approved prerequisites or corequisites.

The department updated all course outlines with SLOs. One change was universal and mandated by the state to remove repeatability from courses. This was not shared with the Welding department as the department is all adjuncts and missed most of the discussions on this mandate.

B. Explain the current evaluation process. How and when was the curriculum last evaluated? (Appropriateness, archiving, deleting, revising, etc.)

The curriculum for WELD was evaluated in 2012-2013 – resulting in the new SLOs on the course outlines.

The curriculum process at this time, relies on CTE training, program review and curriculum requirements. There is no standing curriculum discussion in the department because only adjuncts teach in the discipline.

C. List any courses not in full compliance with Curriculum Committee Standards, including those that have not been updated in the past six years (see <u>Curriculum Manual</u> for additional information, if necessary).

All courses should be in full-compliance at this time. Pre-requisites are in for validation at this time.

D. Curriculum Development: What is the plan for maintaining the currency and viability of your curriculum (including all modes of delivery)?

Welding is primarily hands -on and there are no clear plans to change mode of delivery at this time To off-set any repeatability changes due to the state mandate, the Welding department will review possibility of creating a "family" of courses to help increase skills for students and/or see if the welding courses meet the 'recertification" criteria for classes that are repeatable.

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#### A. Strengths

Competent, experienced, well-educated faculty, trained in most aspects of the welding trade to include welding processes, testing procedures, including destructive and non-destructive test procedures, familiar with many of the technical nuances of the welding industry.

#### B. Weaknesses

Limited equipment due to need for additional power to operate more equipment, as well as class room space for lecture capabilities as needed.

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## **6. External Factors** (see Handbook for worksheet)

## A. Opportunities

Business trends in the immediate area which link to job opportunities for students as they progress in their education toward graduation.

#### B. Threats

Fears of economic depression in this service area because job growth subsides or doesn't come to fruition at all.

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# 7. Continuing Education/Professional Development

A. What continuing education and/or professional development activities have program/unit members participated in during the current cycle?

WELD instructors regularly attend the Barstow Community College CTE training. In addition one instructor is currently American Welding Society certified as a Certified Welding Inspector. This qualifies the department to certify students in various welding processes through PROGRAM REVIEW: Welding ACADEMIC YEAR: 2013-2014 the AWS. B. What are the continuing education and/or professional development plans for the upcoming cycle? Plans are to send all Welding Instructors to the AWS Certified Welding Inspector training course for certification as well when this training becomes available. DATE: ANNUAL UPDATE #1: DATE: ANNUAL UPDATE #2: 8. Prior Goals/Objectives Briefly summarize the progress your program/ has made in meeting the goals and objectives identified in the most recent Program Review or Annual Update. (Include measurements of progress or assessment methods.) No tasks or goals were identified on the last program review due to need for additional training on completing that section DATE: ANNUAL UPDATE #1: DATE: ANNUAL UPDATE #2:

# 9. Goals/Objectives/Actions (ACTION PLAN)

- **A. GOALS:** Formulate Program Goals to maintain or enhance program strengths, or to address identified weaknesses.
- B. ALIGNMENT: Indicate how each Goal is aligned with the College's Strategic Priorities.
- C. OBJECTIVES: Define Objectives for reaching each Goal.
- **D.** ACTIONS/TASKS REQUIRED TO ACHIEVE OBJECTIVE: Create a coherent set of specific steps (Actions/Tasks) that must be taken to achieve each Objective.

**E. OUTCOMES:** State intended Outcomes and list appropriate measures and assessment methods for each Outcome.

F. ADDITIONAL INFORMATION: This area provides for the additional communication of information necessary to further "close the loop" on the goal or action plan, as it relates to Institutional Planning. This may include references to other institutional documents, such as governing or compliance documents (i.e. Board Policy, Administrative Procedures, Title V), institutional planning documents (i.e. <a href="Strategic Plan, Educational Master Plan, Facilities Plan, Technology Plan">Strategic Plan, Educational Master Plan, Facilities Plan, Technology Plan</a>), or Board, Presidential, Supervisory or Departmental recommendations or goals, etc. (See Handbook for additional examples.)

Complete the following table with your Program's ACTION PLAN, which must include a minimum of 3 goals:

	ACTION PLAN						
	GOAL	ALIGNMENT WITH  BCC STRATEGIC PRIORITIES  (click link for list of Strategic Priorities)	OBJECTIVE	ACTIONS/TASKS REQUIRED TO ACHIEVE OBJECTIVE	OUTCOMES, MEASURES, and ASSESSMENT		
#1	#1 Attract more Students  List all that apply: - Foster innovative learning environment - Provide Successful college learning experience - Promote and support student engagement - Cultivate and enhance local partnerships - Attract/develop excellent employees - Strengthen college planning/		#1 Improve dialogue with local businesses	- Work with dean of CTE to outreach at employment summits	OUTCOMES: Business helping inform employees of welding program MEASURES: ASSESSMENT: Enrollment numbers and Class survey on why students are taking class and where they heard about the program		
		decision making	#2 Have counselors and other student contacts become more engaged in the welding department goals	- Outreach to other areas on campus by attending meetings when possible or trying alternative methods of discussions if necessary.	OUTCOMES: more students being informed of welding program MEASURES: ASSESSMENT: Enrollment numbers and Class survey on why students are taking class and where they heard about the program		
			#3 Promote in the community	- Work with dean of CTE to outreach and Public Information officer to promote in more venues or in more ways	OUTCOMES: More community acknowledgement of welding program MEASURES: ASSESSMENT: Enrollment numbers and Class survey on why students are taking class and where they heard about the program		
	Additional Information:						
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#2	Increase welding	List all that apply: - Foster innovative learning	#1 To increase students	Funding will be needed to	Outcomes: Needed		

	Action Plan							
GOAL			ALIGNMENT \ BCC STRATEGIC P (click link for list of Strate	RIORITIES	OBJECTIVE	ACTIONS/TASKS REQUIRED TO ACHIEVE OBJECTIVE	OUTCOMES, MEASURES, and ASSESSMENT	
	equipment to accommodate increased enrollment.		environment - Provide Successful college learning experience - Promote and support student engagement - Strengthen college planning/ decision making		time in welding activity.	purchase needed equipment.	equipment will be obtained without excessive budget needs of the college being over extended.	
					#2 To update and upgrade the weld lab equipment.	Through grants or donations from local businesses.	Assessment: Will be an increase in student success rates overall Surveys of local business will attest to these successes.	
					#3 To improve and modernize to industry standards to benefit the student upon graduation.	Also from other educational oriented companies or organizations.		
	Addition	al Information:						
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#3	Lecture area provided in shop/lab area with environmental consideration for noise and air pollution.  List all that apply: - Foster innovative learning environment - Provide Successful colle experience - Promote and support significant engagement		ege learning	#1 Increases instructional capabilities by allowing lectures for one welding process be conducted while others are working in the shop areas.	Construction of walls, etc. using construction class students to build and learn.	Outcomes: Costs could be minimal if college used this as a learning experience for construction students.		
					#2 Environmentally safe for student learning.	Noise and air pollution decreased	Assessment: Again will be seen by overall enrollment and success of students.	
					#3 Quiet atmosphere for learning objectives	More conducive for learning .		
	Addition	al Information:						
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# 10. Resources Required

List all significant resources needed to achieve the objectives shown in the table above, including personnel, training, technology, information, equipment, supplies, and space. Every request for additional resources must support at least one objective.

Also list any resources required to implement planned improvements noted in 3.C.

**IMPORTANT:** A <u>BUDGET ALLOCATION PROPOSAL</u> must be completed and submitted for **EACH** new resource requested. (Click the link to access the form.)

Goal #	Objective #	Resource Required	Estimated Cost	BAP Required? Yes or No	If No, indicate funding source
1	1,2,3	Time and support for outreach — also holding meetings with counselors and other key contacts on campus and in the community	????		
2.		Equipment and supply needs.	\$51,000		Funding will be needed to purchase needed equipment Through grants or donations from local businesses Also from other educational oriented companies or organizations
3.		Increased quiet lecture space.	Minimal if under taken by a college course in construction trades.		
-					

Goal #	Objective #	Resource Required	Estimated Cost	BAP Required? Yes or No	If No, indicate funding source

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Goal #	Objective #	Resource Required	Estimated Cost	BAP Required? Yes or No	If No, indicate funding source