WELDING TECHNOLOGY

Five Year
INSTITUTIONAL REVIEW

By
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INSTITUTIONAL EFFECTIVENESS REVIEW

~ _WELDING_ / 2008-2009 ~

The purpose of the review is to:

Assess the currency, scope, strengths, opportunities for improvement, and needs of the Welding Technology program.

The process will involve the following steps:

1. Collect Data
2. Review Data and Assemble
3. Write Narrative
4. Submit for Review
5. Finalize

Time frames/timeline for the review will be:

Ronald Krive, retired Jefferson College faculty, will assist Al Zierenberg, Welding Technology faculty, in the Welding Technology 5-Year Institutional Effectiveness Review process beginning March 6, 2009. The review process should be finalized on or before April 1, 2009.

Program/Service: Welding Technology
Date of Review: March, 2009
Review Participants: Al Zierenberg and Ronald Krive

Overview

Purpose of the program and how it relates to college mission, values, vision:

The Welding Technology program combines advanced welding skills and related technical courses designed to prepare students for employment as welders, welder-fitters, specialist welders, or ultimately, welding supervisors, analysts, inspectors, and welding technicians. The American Welding Society standards are stressed.

The Welding program serves a diverse student population including dual-enrolled high school students, traditional and non-traditional, Certificate and Associate Degree seeking, full-time and part-time, and day and evening students. The Welding Technology curriculum, equipment, and facilities are annually reviewed by an advisory committee of past and present Welding Technology students and professionals in the welding field representing local, county, and state located businesses. The Welding Technology is also subject to a 5-year Institutional Effectiveness Review.

Institutional Effectiveness Review

Present Status

The 2003-2004 Welding Technology Program Review is not in a form consistent with the Institutional Effectiveness Review format currently in use. To facilitate subsequent Institutional Effectiveness Reviews, a future Proposed Learning and Service Goals and Action Plan is provided per this format.

Learning/Service and Action from _____ *Institutional Effectiveness Review:*
(previous review date)

Students will:

Learning/Service Goal	*Assessment Measurement/ Action*	*Person(s) to Implement*	*Timeframe*	*Resource Implications*	*Use of results*
Goal 1					
Goal 2					
Goal 3					
Goal 4					

Innovative Changes (in last 5 years):

Three additional student shop positions were added to increase the number of student laboratory positions from sixteen to nineteen during the 2006-2007 academic year. The syllabi for the courses offered by the Welding Technology department were rewritten to conform to the Jefferson College official course syllabus format.

Faculty (Degree to which faculty/staff are qualified, effective, and supported.)

Faculty Qualifications and Professional Development:

Full Time Faculty:

Alvin Zierenberg – Al has been teaching full time at Jefferson College since August of 2006. He brings over 38 years of experience, in welding and steel fabrication, to the classroom. Prior to teaching at the College, Al was most recently employed by Marlo Coil as a supervisor managing employees of two shifts.

Adjunct Faculty:

Gabe Amsden – Gabe is a graduate of Jefferson College and has been teaching in an adjunct capacity for the College since August of 2006. He is certified in the following positions: GMAW F2 and F3 in both carbon and stainless steel, SMAW F2 for carbon and stainless steel, and is also a Level 2 Certified Weld inspector. He is currently employed full time at Czar Weld Tools in House Springs, Missouri.

Jack Simpson – Jack is a graduate of Jefferson College and has been teaching in adjunct capacity for the College since September of 2004. He received his Certificate in Welding in May, 2004 and his A.A.S. in Welding Technology in May, 2006. He holds certified welding qualifications in carbon steel, stainless steel, and aluminum, which he obtained from St. Louis Test Laboratories, Inc.

Faculty Indicators for Welding Technology Instructional Program Review, 2004-2008
School Terms 200401 Through 200803 (Summer 2003 through Spring 2008)

Course / Instructor	Number of Terms Taught (Max = 15)	Number of Course Sections Taught	Total Students	Attrition Number ("W" Grades)	Attrition Percent	Graded Credit Hours (A to F grades)	Average Students	Average GPA	Annualized 5-Year Program FTE
WLD									
Amsden	4	19	63	1	1.6%	310	3.3	2.77	
Petryshyn	6	62	194	6	3.1%	940	3.1	2.65	
Schilly	4	20	62	1	1.6%	305	3.1	3.43	
Simpson	8	40	127	7	5.5%	600	3.2	3.63	
Zierenberg	4	45	173	3	1.7%	850	3.8	2.59	
Column Totals:	26	186	619	18	2.9%	3,005			
Column Averages:							3.3	2.92	20.0

Source: BANNER report WSHRGDST printed 26 September 2008.

Notes: Attrition is the number of "W" grades conferred.

Annualized Program FTE is the number of graded credit hours divided by 150 (30 hrs/yr for 5 years).

Graded Credit Hours are "A to F" only, not "W, I, H, P/F, or Other")

Students (The degree to which student needs are met.)

Student Satisfaction and Feedback:

The registration data for welding courses from Fall 2004 through Spring 2009 show substantial growth beginning Fall 2007 and continuing through Spring 2009 (See Appendix A). If enrollment is influenced by student satisfaction, a healthy degree of student satisfaction is inferred.

A review of student satisfaction surveys conducted from Fall 2006 through Spring 2008 for courses in the Welding Technology major, both day and evening, is summarized as follows.

A total of 340 students representing 29 separate classes responding to Item 7 of the survey: **How would you evaluate your learning experiences in this class?**

Excellent	Above aver.	Average	Below aver.	Poor
62.9%	24.7%	11.5%	0.6%	0.3%

Student Success:

Employment data for 2007-2008 Certificate and Associate degree graduates are summarized as follows.

Associate of Applied Science degree, Welding Technology: Three graduating, two report related employment, one unknown. Average reported salary is $14.50.

Certificate, Welding Technology: Three graduating, two report related employment, one unknown. No average salary reported.

Employment average is 67%.

Employment data for 2008-2009 (December 2008) Certificate and Associate degree graduates are summarized as follows.

Associate of Applied Science degree, Welding Technology, two graduating, one reports related employment, one reports continuing related education. No average salary reported.

Certificate, Welding Technology: One graduating, employment unknown.

Employment average is 50%.

Curriculum (The degree to which curriculum is thorough, current, and supported.)

Curriculum (Scope, Currency, Changes):

The Welding Technology program is intended to provide entry level employment skills for individuals without prior experience for the Associate of Applied Science and Certificate degree completer. The Welding Technology program is also intended to provide professionals in the field opportunities for employment up-grading or retraining.

The Welding Technology curriculum, equipment, and facilities are annually reviewed by an advisory committee of past and present Welding Technology students and professionals in the welding field representing local, county, and state located businesses. The American Welding Society standards are stressed.

Curriculum Issues (Support, Technology, Equipment)

The College provides hardware and software technical and maintenance support for classroom and faculty office computers and classroom teaching equipment. Shop equipment and other specialized equipment is purchased using Perkins and Enhancement grants as well as the opportunity to be awarded Jefferson College Foundation grants. Donations from individuals and organizations represent a significant cost reduction for consumable items used in teaching the various classes in the Welding Technology program.

Community (The degree to which the program contributes to the community and responds to community needs)

The Welding Technology program responds to community needs through its Advisory Committee. The program provides for high school dual-enrollment as well as traditional and non-traditional post-secondary students. It provides opportunities for developing entry level employment skills for those community members seeking gainful employment in the welding field. It also provides opportunities for the continuing education of professionals employed in the welding field.

Welding Technology
Program Review
FY 2005-2009

	Actual FY 2005	Actual FY 2006	Actual FY 2007	Actual FY 2008	Budget FY 2009
Salaries	68,797.33	67,536.38	43,173.11	53,520.52	56,039.00
Benefits	14,000.27	13,058.82	10,772.72	14,475.60	15,785.00
All Other Expenses:					
Unrestricted Fund	19,675.48	15,070.33	14,303.09	18,592.52	12,000.00
Total Unrestriced Fund	102,473.08	95,665.53	68,248.92	86,588.64	83,824.00
RTEC	611.06	12,467.08	12,272.08	-	15,411.00
Carl Perkins	514.23	-	-	2,380.61	-
Enhancement Grant	7,509.37	17,580.22	-	6,012.87	-
Plant Fund	2,219.00	-	895.54	12,487.36	-
Total Expeses - Welding Technology	113,326.74	125,712.83	81,416.54	107,469.48	99,235.00

Summary (SWOT)

Strengths	Weaknesses
1. Enrollment of both day and evening postsecondary and high school dual-enrollment students. **2. Current enrollment maximizes the use of available shop and classroom spaces.** **3. Active and supportive Advisory Committee.** **4. Significant donations of equipment and consumable items by local companies.**	**1. Age of shop equipment.** **2. Coordination of consumable item use and equipment maintenance between day and evening faculty.**
Opportunities	**Threats**
1. Positioning the Certificate and Associate Degree programs for employee training/retraining. **2. Increasing program exposure/advertisement.** **3. Closer relationship between faculty, advisory committee, and placement services.**	**1. Enrollment limited by existing shop facilities, equipment, and faculty loads.** **2. Current program structure/class offerings typically requiring more than two years for completing the degree requirements negatively impacts student enrollment/completion.**

Future (Proposed Learning and Service Goals and Action Plan)

Learning/Service Goal	*Assessment Measurement/ Action*	*Person(s) to Implement*	*Timeframe*	*Resource Implications*	*Use of results*
Goal 1 Equipment Upgrade	**Determine equipment needs and replacement schedule**	**Al Zierenberg**	**Continuous**	**Faculty and Advisory Committee**	**Improve student laboratory equipment**
Goal 2 Curriculum Revision	**Evaluate existing curriculum against current and future standards and practices**	**Al Zierenberg**	**Continuous**	**Faculty and Advisory Committee**	**Improve student prospects for placement and improve curriculum and instruction**
Goal 3 Student Enrollment and Retention	**Evaluate current method of course offerings as impediment to enrollment and retention**	**Al Zierenberg**	**2009 - 2010**	**Faculty**	**Increase student enrollment and improve retention rate**
Goal 4 Student Success	**Evaluate student placement**	**Al Zierenberg**	**Continuous**	**Faculty**	**Program advertisement and student enrollment**

DISCIPLINE STATUS

_____ Satisfactory
_____ Requires Immediate Attention
_____ Unsatisfactory

_____ _____
Dean Date

Registration figures for for welding courses.

The following figures are for Academic Years (fall, and spring) beginning with summer 2004 (academic year 04-05).

COURSE	2005	2006	2007	2008	2009	Totals	
WLD141	96	96	104	152	180	628	
WLD142	92	92	92	125	157	558	
WLD243	108	96	96	144	168	612	
WLD244	80	80	80	128	165	533	
WLD245	72	72	72	104	113	433	
WLD246	72	72	72	118	148	482	
Totals	520	508	516	771	931	**3246**	**3246**

Figures further broken down by semester.

COURSE	Fall 2004	Spring 2005	Fall 2005	Spring 2006	Fall 2006	Spring 2007	Fall 2007	Spring 2008	Fall 2008	Spring 2009	Totals	
WLD141	64	32	64	32	72	32	88	64	104	76	628	
WLD142	32	60	32	60	32	60	32	93	48	109	558	
WLD243	64	44	64	32	64	32	80	64	92	76	612	
WLD244	32	48	32	48	32	48	48	80	64	101	533	
WLD245	40	32	40	32	40	32	56	48	56	57	433	
WLD246	32	40	32	40	32	40	48	70	64	84	482	
Totals	264	256	264	244	272	244	352	419	428	503	**3246**	**3246**