

**Form NP**

**NEW PROGRAM PROPOSAL FORM**

**Sponsoring Institution(s):** State Fair Community College

**Program Title:** Metals Technology

**Degree/Certificate:** Associate of Applied Science

**Options:** \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**Delivery Site(s):** Sedalia

**CIP Classification:** 580511 Metal Fabrication (Please provide a CIP code)

**Implementation Date:** Fall 2010

**Cooperative Partners:** NA

**Expected Date of First Graduation:** Spring 2012

**AUTHORIZATION**

\_\_\_\_\_

Name/Title of Institutional Officer    Signature    Date

Dr. Brent Bates, Vice President of Educational and Student Services

Person to Contact for More Information    Telephone

Dr. Brent Bates, 660.596.7252

### **Need and Market Demand:**

State Fair Community College's main campus is located in Sedalia, a community with a significant industrial base. Industry in our community has required a workforce trained in welding and in machine tool and the college has responded with programs specializing in each area. But today, industry is changing. It is demanding workers with training both areas instead of specialization in one.

This program, which fits within the mission of State Fair Community College, as it "enriches our community ...by providing skills and knowledge essential for this changing world," has been influenced by industrial members of our advisory committees. Special influence is a new company in our community, ProEnergy, which is one of the fastest growing companies in the state. This degree is tailored to fit specific needs of ProEnergy.

### **Form SE**

#### **STUDENT ENROLLMENT PROJECTIONS**

<b>Year</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
Full Time	6	8	10	12	14
Part Time	8	12	16	20	24
<b>Total</b>	<b>14</b>	<b>20</b>	<b>26</b>	<b>32</b>	<b>38</b>

### **Market**

There is not a single occupational category that matches this degree program. Generally, the job outlook for heavy manufacturing is declining in Missouri. However, locally, there is demand for trained metals technologists. Much, though not all, of the demand is from ProEnergy, a company specializing in power generation and branching out into alternative energy. This industry is not yet showing up in growth projections (statewide, projections are for this manufacturing area to be one of the few manufacturing areas with growth, though it is slight), but again, locally it has huge impact. We have other industrial partners who are in the commercial and service industry machinery manufacturing area, which is one of the only manufacturing areas listed on MERIC's list of fastest growing industries in our region.

## Form CL is Not Applicable

### Form CL

#### COLLABORATIVE PROGRAMS

Sponsoring Institutions: NA

\_\_\_\_\_

\_\_\_\_\_

Degree program: \_\_\_\_\_

Length of agreement: \_\_\_\_\_  
(open-ended or limited)

1. Which institution(s) will have degree-granting authority?
2. Which institution(s) will have the authority for faculty hiring, course assignment, evaluation, and reappointment decisions?
3. What agreements exist to ensure that faculty from all participating institutions will be involved in decisions about the curriculum, admissions standards, exit requirements?
4. Which institution(s) will be responsible for academic and student-support services, e.g., registration, advising, library, academic assistance, financial aid, etc.?
5. What agreements exist to ensure that the academic calendars of the participating institutions have been aligned as needed?
6. In addition to the information provided by each participating institution regarding Financial Projections (Form FP), please address the following items:
  - A. How will tuition rates be determined if they differ among the institutions?
  - B. Has a formal agreement been developed regarding cost-sharing policies? If yes, please include it as part of the proposal. If no, please summarize the current understanding between all parties and the plans for developing a formal agreement.
  - C. What arrangements, if any, have been made for exchange of money between participating institutions?
7. What commitments have been made by all participants to evaluate the program systematically?
8. If one institution wishes to discontinue the program, what agreements exist for terminating the offering?

## Form PS

### PROGRAM STRUCTURE

A. Total credits required for graduation: 65

B. Residency requirements, if any: NA

C. General education: Total credits: 18

Courses (specific courses OR distribution area and credits):

Course	Credit Hours	Course	Credit Hours
MATH 108 Tech Math II <i>or</i> MATH 112 Intermediate Algebra	3	PHYS 125 Technical Science	4
ENGL 101 English Comp I <i>or</i> ENGL 112 Tech Writing	3	HIST 101 US History Before 1877 <i>or</i> HIST 102 US History After 1877 <i>or</i> POLS 101 American Nat'l Government	3
SPTH 101 Public Speaking Wellness Course	3 1	SS 120 Employment Strategies	1

D. Major requirements: Total credits: 41

Course	Credit Hour	Course	Credit Hour
WELD 101 Welding Tech I	4	MACH 101 Intro to Machining	4
WELD 102 Welding Tech II	4	MACH 102 Lathe and Milling Machine Operations	4
WELD 102 Welding Tech III	4	MACH 103 Milling and Grinding Machine Applications	4
WELD 104 Welding Tech IV	4	MACH 104 Advanced Machining	4
WELD 115 Print Reading for Welders and Machinists	3	MACH 115 Heat Treating and Metallurgy	3
CNST 162 Construction Safety <i>or</i> IEM 126 Industrial Safety	3		

E. Free elective credits: 6 (Sum of C, D, and E should equal A.)

### Program Electives

Credit  
Hours

Any additional MACH, WELD, IEM, AUTO, CNST, CAD *or* MATH 107 may be taken  
as an elective

6

F. Requirements for thesis, internship or other capstone  
experience: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

G. Any unique features such as interdepartmental cooperation: This program is a collaboration between the existing Machine Tool and Welding programs.

## Form PG

### PROGRAM CHARACTERISTICS AND PERFORMANCE GOALS

Institution Name State Fair Community College

Program Name Associate of Applied Science, Metals Technology

Date June 23, 2010

(Although all of the following guidelines may not be applicable to the proposed program, please carefully consider the elements in each area and respond as completely as possible in the format below. Quantification of performance goals should be included wherever possible.)

#### Student Preparation

- Any special admissions procedures or student qualifications required for this program which exceed regular university admissions, standards, e.g., ACT score, completion of core curriculum, portfolio, personal interview, etc. Please note if no special preparation will be required.

No special preparation will be required. Regular college entrance requirements will be applicable such as prerequisite scores or classes for program general education requirements.

- Characteristics of a specific population to be served, if applicable.

Not applicable. The populations interested in the program are those that are re-training for better jobs or to prepare for employment. Some students will be receiving funds to train or re-train.

#### Faculty Characteristics

- Any special requirements (degree status, training, etc.) for assignment of teaching for this degree/certificate.

BS degree in Industrial Technology with emphasis in metallurgy and welding or experience in metallurgy and welding preferred, Certification or significant experience in the field considered..

- Estimated percentage of credit hours that will be assigned to full time faculty. Please use the term "full time faculty" (and not FTE) in your descriptions here.

Presently a full-time faculty member will not be hired. This program will be staffed with adjunct faculty.

- Expectations for professional activities, special student contact, teaching/learning innovation.

Professional development opportunities will be available for faculty. Expectations of faculty include extensive hands-on activities utilizing equipment in both machine tool and welding areas. The equipment will be available in the same space.

## Enrollment Projections

- Student FTE majoring in program by the end of five years.

33

- Percent of full time and part time enrollment by the end of five years.

Full-time – 37%

Part-time – 63%

## Student and Program Outcomes

- Number of graduates per annum at three and five years after implementation.

10 and 15.

- Special skills specific to the program.

No special requirements for program entry.

- Proportion of students who will achieve licensing, certification, or registration.

Welding certification is incorporated into classes – 100%.

Machine tool and/or metallurgy – 25%.

- Performance on national and/or local assessments, e.g., percent of students scoring above the 50th percentile on normed tests; percent of students achieving minimal cut-scores on criterion-referenced tests. Include expected results on assessments of general education and on exit assessments in a particular discipline as well as the name of any nationally recognized assessments used.

Students will take the national certification tests and 80% will perform above the 50<sup>th</sup> percentile.

American Welding Society (AWS) welding certifications are included in the welding courses and include welder, welding engineer, and fabricator.

National Institute Metalworking Skills (NIMS) offers a variety of certifications including machining, metalforming, stamping, press brake, slide forming, maintenance, and diemaking. The NIMS Credentials certify an individual's skills based on the NIMS Standards. To earn NIMS credentials, an applicant takes a performance test and a theory test. The performance requirements and theory tests are based on the NIMS Standards, and are written and piloted by industry. NIMS currently offers 52 metalworking credentials.

- Placement rates in related fields, in other fields, unemployed.

Placement rates in welding are excellent. There are job opportunities in area companies in machinist apprentice, millwright, and welding. ProEnergy will be expanding and will be hiring a number of individuals with machine tool and welding knowledge.

- Transfer rates, continuous study.

It is anticipated that there will be only a minimal number of students who will transfer.

It is anticipated that approximately 20 percent of the students in welding and/or machine tool will also complete the requirements for the metals technology to make them more marketable.

### **Program Accreditation**

- Institutional plans for accreditation, if applicable, including accrediting agency and timeline. If there are no plans to seek specialized accreditation, please provide reasons.

Currently there are no plans to become accredited with the National Institute for Metalworking Skills. To adequately manage the accreditation, a full-time faculty person to coordinate the program would be required. Due to the expense of hiring full-time faculty, the program will be staffed initially by adjunct faculty.

### **Alumni and Employer Survey**

- Expected satisfaction rates for alumni, including timing and method of surveys

Satisfaction rates will be good and graduates will be surveyed in an annual 180-day survey of graduates.

- Expected satisfaction rates for employers, including timing and method of surveys.

Satisfaction rates will be good and employers will be surveyed during periodic surveys of employer satisfaction.

## **Form OS is Not Applicable**

### **Form OS**

#### **OFF-SITE DELIVERY OF AN EXISTING PROGRAM FORM**

**Sponsoring Institution (s):**

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Name of Institution (Campus or off-campus residential center in the case of multi-campus institutions).

**Program Title:** \_\_\_\_\_

**Degree/Certificate:** \_\_\_\_\_

**Institution Granting Degree:**

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**Delivery Site(s):** \_\_\_\_\_

**Mode of Program Delivery:**  
\_\_\_\_\_  
\_\_\_\_\_

**Geographic Location of Student  
Access:** \_\_\_\_\_  
\_\_\_\_\_

**CIP Classification:** \_\_\_\_\_ (Please provide CIP code)

**Implementation Date:** \_\_\_\_\_  
Semester and Year

**Cooperative Partners:** \_\_\_\_\_

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AUTHORIZATION

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Name/Title of Institutional Officer    Signature    Date

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Person to Contact for More Information    Telephone