

# Industrial Arts Department

## Annual Planning for Academic Year 2015-2016

### Planning Year 2014

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## Description Of Department/Unit

### Mission/Connection to College Mission

It is the mission of the Industrial Arts Department to provide courses and instruction that will meet the academic, vocational, and general education needs of our students, college, and communities. We provide instruction leading to Associate degrees and certificates in multiple occupational areas including: Welding, Industrial Technician, and Machine Tools.

The programs in the Industrial Arts Department provide life-long learning and support to students in their academic, technical, and vocational pursuits. The goal of our programs is to foster in students a lifelong desire to learn, a passion to excel, and a commitment to contribute actively to their local community. Students graduating from the department's programs will be prepared to enter the job market in entry level positions with a variety of focus including but not limited to: construction, mining, manufacturing, drafting, welding, fabrication and machine shops, electronics, railroads, automotive, as well as the aircraft, marine, aerospace, and renewable energy industries.

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## Student Equity

### Student Equity

The Industrial Arts Department has identified under-represented groups within our program.

Women have ranged from 6-10% over the past several years, African American 2-7%, Asian/Phillipino/Pac Islander 1-3%, and Hispanic/Latino 16-19%.

It is not likely that women participating in the Industrial Arts/Welding program will come in line with the collegewide average of 62%. However the department has student success stories of women in the welding trades some of which will be used in future advertising. We will feature women and minorities in brochures and other advertising.

The department is higher than the average in the younger 19-29 age groups 19% compared to 15% and men 94% compared to the average of 38%.

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## Review And Planning

### Progress Made on Program Review

#### Welding

#### Year of Last Program Review:

2012

#### Progress in the last year on Three-Year Strategies:

Goal 1. Additional space/lab area. As mentioned above, the welding program has outgrown the current lab. A plan to increase size requirements and convert the existing lab into a dedicated oxyfuel lab is being developed. This will increase the capacity to accommodate 30+ students. The office will be removed to provide an open floor plan which is needed to better utilize the space for increased productivity and safety.

Progress: Plans for the existing lab are still being researched and evaluated.

Goal 2. A dedicated electric welding lab in the former machine tool space is also being designed. The new lab will accommodate 30+ electric welding stations for SMAW, GMAW, GTAW and fabrication classes.

Progress: The designs for the new lab are complete and construction has begun.

Goal 3. The addition of more welding equipment and infrastructure to support the increased capacity for both the gas and electric labs will be appropriated.

Progress: Equipment for the new facility has been purchased. The equipment was procured through a grant from the Department of Labor (C6).

Goal 4. Establish an adjunct instructor pool and lobby for an additional full-time instructor and a TA.

Progress: New instructors have been vetted and are in the adjunct pool. Several adjuncts are now teaching. A new full-time instructor was approved and hired and there are interviews currently being held for a TA.

Goal 5. Start advertising more aggressively including a Cerro Coso Welding Program web site.

Progress: New brochures are being developed. The department has discussed with the webmaster having a link on the college website to the Welding Department where there will be additional information and videos of actual welding in the lab.

Goal 6. To keep current instructors will continue to engage in professional development and curriculum will be reviewed.

Progress: Courses, certificates, and the degree have been updated, courses added, and gone through the CIC process.

Goal 7. Develop a cohort model and revised schedule so students are able to receive the twelve unit certificate in three semesters.

Progress: A cohort model has been adopted and career pathway changed and the twelve unit certificate can now be obtained in three semesters.

#### **Progress in the last year on Six-Year Strategies:**

Curriculum has been updated and is current.

### **Progress Made on Outcome Assessment**

#### **Demonstrate competency in major welding processes used in industry.**

##### **Type:**

PLO

##### **Semester Assessed:**

To Fall 2014

##### **Target Missed/Gap Detected:**

There were no course or program outcomes that were not met except for the absence of a Pipe and Tube Welding course that was missing from the welding processes available.

##### **Analysis and Plan:**

The course is in the process of going through CIC. Program outcomes will be assessed in 2016 prior to program review.

### **Progress Made on Prior Year Initiatives**

#### **Welding labs expansion and modernization.**

##### **Progress Made:**

The major portion of construction of the new welding facility is nearing completion. There have been several setbacks and completion of the project is scheduled for spring of 2015.

#### **Electronics Lab Refurbish**

##### **Progress Made:**

The electronics lab has been completely refurbished. The Basic Hand Tools classes have built student work stations including ADA compliant stations. Electronic equipment has been installed and when the industrial arts building modernization project is completed

(roof) the class room will be ready for instruction.

### **Maintenance of facilities**

#### **Progress Made:**

Equipment from the former Automotive program was inventoried and serial numbers recorded. The equipment was then surplus and removed.

The canopy re-sizing and relocation has not taken place.

Electronics lab update has been completed.

Projectors for Industrial Arts areas have not been purchased or installed.

### **Initiatives for Next Academic Year**

#### **Welding Instructional Videos**

##### **Strategic Plan Goals Addressed:**

1,2

##### **Action Plan:**

Produce live welding videos for student instruction and visualization of proper welding techniques and procedures.

##### **Measure of Success:**

Videos produced and installed in a Moodle shell and students increase their understanding of correct welding procedures.

##### **Expected Completion:**

Fall 2015

##### **Person Responsible:**

Chair/faculty

##### **Designed:**

It is designed to increase student success

##### **Student Experience:**

2nd Year/Program Completion, First Year

#### **Continuation of C6 Federal Grant**

##### **Strategic Plan Goals Addressed:**

4

##### **Action Plan:**

Continue classes.

##### **Measure of Success:**

Students graduating with industry standard certifications and job placement.

##### **Expected Completion:**

Spring 2015

**Person Responsible:**

Dept Chair, Dean, Job Developer

**Designed:**

It is designed to improve internal unit operations

**Student Experience:**

**Complete Construction and Outfitting of New Welding Facility**

**Strategic Plan Goals Addressed:**

2

**Action Plan:**

Oversee installation of infrastructure for new welding laboratory. Install equipment for new welding laboratory. Design and build components for storage of materials and equipment.

**Measure of Success:**

Operation of facility is efficient and effective, delivering a quality learning environment for students.

**Expected Completion:**

Spring 2016

**Person Responsible:**

Chair/faculty

**Designed:**

It is designed to increase student success

**Student Experience:**

2nd Year/Program Completion, First Year

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## Resource Needs

### Facilities

Video projection equipment with wireless connection from computers for rooms 192, 198, 145 and 147. Videos demonstrations and Power Point presentations will supplement and augment instruction. Desks (tables) and chairs to accommodate thirty students for the new welding laboratory (Rm 147). Water line for CNC plasma cutter. Additional 120 and 208 volt receptacles for equipment on north wall of Rm 147. Canopy in Industrial Arts yard split and part moved to existing welding lab yard (Rm 192). Metal storage rack for new welding lab (Rm 147 - 198). Lockers for new welding lab. Material storage units for welding supplies and consumables (Rm 147). . Remove vacuum exhaust unit from north wall of new welding lab (Rm 147). The above relates to College Strategic Plan 1.

### Information Technology

Instructor stations with computers and document readers. Laptop computer for full-time instructor.

### Marketing

Update brochures for industrial Arts. Design a new brochure for Welding Department. Make a promotional video for the Welding

Department that can be linked from the college website. Maintain a presence at events such as Career Day, Fall Fair, AVID, and other high school outreaches.

## **Professional Development**

Department members wish to attend conferences, workshops, or events related to trade skills or teaching/learning skills, as opportunity arises and funding is available. For example: Certified Welding Inspector training for full-time faculty (if qualified) would enable the Welding Program to offer a nationally recognized certificate in Gas Metal Arc Welding (GMAW, MIG). Attend Fabtech/AWS International trade show for welding and fabrication to keep current with the latest technologies, attend workshops, and establish contacts with vendors for materials and equipment. Attend conferences such as California Business Educators Association to gain knowledge of topics such as new strategies for student success/retention, building industry partnerships, aligning pathways with the K-12 system, and using technology in the classroom. Attend Flex Day activities.

## **Staffing**

The full-time teaching assistant plan should be in place by 2015-2016.

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## **Resource Requests**

### **1000 Category - Certificated Positions**

### **2000 Category - Classified Staff**

### **4000 Category - Supplies and Equipment**

#### **Instructional Materials**

##### **Location:**

Ridgecrest/IWV

##### **Priority:**

High

##### **Strategic Plan Goals Addressed:**

1,2

##### **Estimated Amount of Funding Requested:**

\$35,000, Ongoing from General Fund.

##### **Detailed Rationale:**

These supplies are required for instruction. They include metal, welding rod and electrodes, welding and shielding gases and consumables for the welding classes. Supplies and consumables for the Tool and Equipment Operation class including wood, metal, fasteners, and consumables.

### **5000 Category - Service, Utilities, and Operating Expenses**

### **6000 Category - Capital Outlay**