CALIFORNIA COMMUNITY COLLEGES

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714.628.5041
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PROGRAM APPROVAL APPLICATION
NEW or SUBSTANTIAL CHANGE or LOCALLY APPROVED
(This application may not exceed 3 pages)

Fill In Form

Automated Robotic Welding Systems

Fall 2016

Proposed Program Title

Projected Program Start Date

Santa Ana College

Rancho Santiago Community College District

College

District

Contact Information

Bart Hoffman

Dean, Career Education and Workforce Development

Voting Member

Title

714-564-6800

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Phone Number

Email

Goal(s) of Program (Check all that apply):

- [x] Career Technical Education (CTE)
- [ ] Transfer
- [ ] Other

Type of Program (Check all that apply):

- [ ] Certificate of Achievement 12-17 (or 17-27 quarter) units
- [x] Certificate of Achievement 18+ semester (or 27+ quarter) units
- [x] Associate of Science Degree
- [ ] Associate of Arts Degree

Reason for Approval Request (Check One):

- [ ] New Program
- [ ] Substantial Change
- [x] Locally Approved

Program Information

0956.50

Recommended Taxonomy of Program (TOP) Code

_____ Units for Major-Degree

_____ Total Units for Degree

18

Required Units-Certificate

Written Form

1. **Insert the description of the program as it will appear in the catalog.**

   The certificate curriculum in welding technology is designed to provide advanced occupational training in Automated Robotic Welding. The program provides students with training in set up, programming and operation in automated systems. These classes are designed to meet both current and future needs in the robotic welding industry. The program provides the students the knowledge in the Gas Metal Arc Welding process. In addition, students will be prepared for certification as required by employment in the robotic welding industry. Employment opportunities available are welder, robotic welder technician, inspector, production welder in manufacturing and shipbuilding. The Santa Ana College Welding Program is a Los Angeles Certified Testing Lab Facility. The program offers training and testing for the following certifications: SMAW, FCAW, TIG, MIG and Pipe.

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2. **Provide a brief rationale for the program.**

The Automated Robotic Welding Systems Certificate of Achievement is designed to meet the needs of industry. As technology progresses at an increasing rate, the need for up to date machines and techniques has continued to gather speed. This program is a necessary part of the new certified welding areas, designed to increase employment in high paying, in demand jobs. This program will provide students with a hands-on experience and certification using state of the art, modern welding and cutting machines. As the need for high paying and in demand jobs continues to increase, modernized welding is well suited to help break down barriers for diverse and nontraditional students. The Automated Robotic Welding Systems Certificate of Achievement will serve as an additional pathway to a satisfying career in a growing industry.

This program has been offered as a certificate of proficiency. We are adding courses to increase the training and skills students will receive in automated robotic systems, bringing the unit total to 18.

3. **Summarize the Labor Market Information (LMI) and employment outlook (including citation for the source of the data) for students exiting the program.**

According to the Labor Market Information of Estimated Employment and Projected Growth for the following occupation titles: Welders, Cutters, Solderers, and Brazers and Welding, Soldering, and Brazing Machine Setters, Operators, and Tenders, there are 2390 projected openings in Los Angeles and Orange counties over a ten year period (2012-2022). The average number of yearly job openings for Los Angeles and Orange counties for Welders, Cutters, Solderers, and Brazers and Welding, Soldering, and Brazing Machine Setters, Operators, and Tenders is estimated to be 239. According to the Chancellor's Office Data Mart, in 2014-2015 there were 151 completions at the community colleges in Los Angeles and Orange counties for programs with a TOP code of 095650 Welding Technology. Therefore, 239 minus 151 would still result in a Net Annual Labor Demand of 88 jobs.

http://www.labormarketinfo.edd.ca.gov/

4. **List similar programs at other 27 colleges in the Los Angeles and Orange County Region which may be adversely impacted. (There is space for 10 listings, if you need more, please contact laocrc@sccollege.edu)**

College	Program	Who You Contacted	Outcome of Contact
Cerritos College	Welding Technology	Nick Real	Emailed--supportive
El Camino College	Welding	Virginia Rapp	Emailed—no response
Fullerton College	Welding Technology	Doug Benoit	Emailed—no response
Glendale City College	Welding	Jan Swinton	Emailed—no response
LA Trade Tech	Welding, Gas and Electric	Macia Wilson	Emailed—no response
Long Beach City College	Welding Technology	Brent Gilmore	Emailed—no response
Mt. San Antonio College	Welder/Welding Technology	Jemma Blake-Judd	Emailed—no response
Orange Coast College	Welding Technology	Susan Coleman	Emailed—no response
Pasadena City College	Construction Welding	Salomon Davila	Emailed—supportive
Rio Hondo College	Welding Technology	Bruce Noble	Emailed—no response
Compton College		Virginia Rapp	Emailed—no response
LA Pierce College		Jose Luis Fernandez	Emailed—no response

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5. **List all courses required for program completion, including core requirements, restricted electives and prerequisites. (There is space for 20 listings, if you need more, please contact laocrc.sccollege.edu).**

Courses	Course Number	Course Title	Units
Required Core Course	WELD 156A	Beginning Robotic Welding	3
Required Core Course	WELD 156B	Intermediate Robotic Welding	3
Required Core Course	WELD 156C	Advanced Robotic Welding	3
Required Core Course	WELD 157A	Basic Robotic Programming	3
Required Core Course	WELD 157B	Intermediate Robotic Programming	3
Required Core Course	WELD 157C	Advanced Robotic Programming Welding	3

6. **Include any other information you would like to share.**

We checked the box for AS degree as well in case we decide in the future to offer this option in addition to a Certificate of Achievement.