



## Alabama Community College System *Application for a New Instructional Program*

**A. General Information:**

1. Name of Institution: Shelton State Community College
2. Program Title: Welding Prefix: WDT
3. Date of Application Submission: November 8, 2017
4. Proposed Program Implementation Date: Fall 2018
5. AAS  CER \_\_\_\_\_ STC \_\_\_\_\_ CIP Code 48.0508
6. Marketing Name: Welding
7. Options (List proposed options under appropriate award):

Short-Term Certificate		Certificate		Associate in Science/Technology	
CIP Code	Option	CIP Code	Option	CIP Code	Option
				48.0508	Welding

8. Location: Campus Martin Instructional Site \_\_\_\_\_  
Off-Campus Site \_\_\_\_\_ Clinical/Industrial Site \_\_\_\_\_  
Agencies \_\_\_\_\_

**B. Institutional Contacts:**

Grant Cockrell Telephone 205.391.2384 E-mail gcockrell@sheltonstate.edu  
Program Director or Department Head

Dr. Joye Jones Telephone 205.391.2283 E-mail jjones1@sheltonstate.edu  
Instructional Dean

Rhonda Smith Telephone 205.391.2991 E-mail rsmith@sheltonstate.edu  
Financial Aid Director

William J. Ashley, Ph.D. Telephone 205.391.2251 E-mail bashley@sheltonstate.edu  
President

## C. Program Objectives and Content

1. Program Description. (You may use program descriptions from the NCES Classification of CIP Codes <http://nces.ed.gov/ipeds/cipcode/Default.aspx?y=55>)

A program that prepares individuals to apply technical knowledge and skills to join or cut metal surfaces. Includes instruction in arc welding, resistance welding, brazing and soldering, cutting, high-energy beam welding and cutting, solid state welding, ferrous and non-ferrous materials, oxidation-reduction reactions, welding metallurgy, welding processes and heat treating, structural design, safety, and applicable codes and standards.

2. List objectives of the program as precisely as possible. The objectives should address specific needs the program will meet (institutional, societal, and employability) contiguous with expected learning outcomes and achievements. **Objectives must lend themselves to subsequent review and assessment of program accomplishments.**

To establish welding skills necessary for entry-level job placement and to enhance the skills of experienced welders in various arc welding processes used by industry. The student will be able to make quality welds, layout and fabricate various pipe connections, perform repair work, and have knowledge of welding codes and blueprint reading.

3. How will this program be related to other programs at your institution?

SSCC currently offers a Short-term Certificate and Certificate in Welding. The Area V Technical Concentration for the proposed Associate in Applied Science (AAS) Welding degree will be identical to the current Certificate curriculum.

4. Identify any existing program, option, concentration, or track that this program will replace.

The program will not replace any existing program, option, concentration or track at SSCC. The College will continue to offer the certificate and short-term certificate options in welding.

5. Program Completion Requirements:

- Total credit hours required in major (Area V): 42 Credit Hours
- Total credit hours in institutional general education (Area I-IV): 22-23
- Total credit hours for each option (AAS/CER/STC): N/A; no additional STC or CER options are being proposed
- Total credit hours required for completion. 64-65

*NOTE: Work base learning will be a required function in a program to receive funding from different sources in the future.*

D. Program Accreditation/Certification and Nationally Recognized Business and Industry Credentials:

1. Identify any programmatic conditions.
  - a. Pre-accreditation: N/A
  - b. Accreditation/Certification: Shelton State Community College is accredited by the Southern Association of Colleges and Schools Commission on Colleges to award the Associate in Arts, Associate in Science, and the Associate in Applied Science Degrees.
  - c. Business and Industry Credentials: The WDT program provides students with opportunities to obtain AWS and ASME industry recognized credentials.
  - d. Licensing: N/A
2. Identify specific articulation agreements with four-year universities which will accept the transfer of skills-emphasis credits for this program.

No current articulation agreement exists with any four-year university specific to skills-emphasis Welding credits.

E. Attach the Associate Degree/Certificate/Short-Term Certificate curricula by semester (and by option) to this proposal as **APPENDIX A**. See sample below.

Program Requirements			
	Course #	Course Name	Sem. Hours
Semester 1	ILT 160	DC Fundamentals ( <i>ETA DC EM1 Exam</i> )	3
	ILT 161	AC Fundamentals ( <i>ETA AC EM2 Exam</i> )	3
	ILT 109	Blueprint Reading	3
	CIS 146	Microcomputer Applications	3
		<b><i>Eligible for Short Term Certificate (STC) – Basic Industrial Electronics</i></b>	
Semester 2	ILT 197	Motor Controls	3
	ILT 162	Solid State Electronics ( <i>ETA Analog EM3 Exam</i> )	3
	SPH 107	Fundamentals of Public Speaking	3
	MTH 100	MTH 100 or numerically higher	3
		<b><i>Eligible for Short Term Certificate (STC) – Intermediate Industrial Electronics</i></b>	
Semester 3	ILT 163	Digital Electronics ( <i>ETA Digital EM4 Exam</i> )	3
	ILT 166	Motors & Transformers	3
	ILT 194	Programmable Logic Controls	3
	ENG 101	English Composition I	3
	Area III	Math, Science or Computer Science elective	3
		<b><i>Eligible for Short Term Certificate (STC) – Industrial Electrical Technician</i></b>	
Semester 4	ILT 195	Troubleshooting Techniques	3
	ILT 276	Advanced Industrial Controls (PLCs)	3
	ILT 277	Advanced Industrial Controls (PLCs) Lab	2
	Area IV	Social and Behavioral Science elective	3
	WKO 106	Workplace Essentials ( <i>Alabama Career Readiness Certificate</i> ) ( <i>OSHA 10 Hour Card</i> )	3
		<b><i>Eligible for Certificate (CER) – Industrial Control Technician</i></b>	
Semester 5	ILT 192	Co-op in Industrial Electronics ( <i>ETA Comprehensive EM5 Exam</i> )	3
	ILT 216	Industrial Robotics	3
	ILT 217	Industrial Robotics Lab	2
	ILT 108	Introduction to Instrumentation & Process Control	3
	Area II	Humanities & Fine Arts Elective	3
			<b><i>Eligible for AAS in Industrial Electronics</i></b>
		Total Hours Required for Degree	67

**Reminder:**

- Work with your financial aid director regarding program and student financial aid eligibility.
- Program eligibility information may be found at [www.ifap.com](http://www.ifap.com).
  - Federal Student Aid Handbook, Chapter 2.

F. **Program Admissions Requirements, Enrollment Projections and Completion Projections**

1. Describe the criteria and screening process that will be used to select students for the program.

Students meeting Shelton State Community College admission requirements are eligible for program enrollment. The Welding program accepts students on a first-come, first-served basis.

2. Describe the methodology for determining enrollment projections. Attach a copy of the survey instrument with a **summary** of results (how many, to whom, response rate) as **APPENDIX B**. Do not submit copies of the individual survey responses.

Enrollment projections were determined by evaluating the results of an AAS degree in Welding interest survey administered to current SSCC students enrolled in the Welding Certificate or Short-term Certificate program. Of the 80 SSCC students enrolled in a welding course during the 2017 Summer and/or Fall semester, approximately half indicated they would pursue an AAS degree in Welding (41/80 students) if made available.

G. Provide an estimate of the costs of the program. Provide enrollment and degree completions projections.

SSCC currently operates a Welding Certificate program. As the addition of an AAS degree in Welding will only involve modifications to the general education requirements of the current Welding Certificate curriculum, no additional program costs exist.

ESTIMATED NEW FUNDS REQUIRED TO SUPPORT PROPOSED PROGRAM						
	Year 1	Year 2	Year 3	Year 4	Year 5	TOTAL
FACULTY	\$0	\$0	\$0	\$0	\$0	\$0
LIBRARY	\$0	\$0	\$0	\$0	\$0	\$0
FACILITIES	\$0	\$0	\$0	\$0	\$0	\$0
EQUIPMENT	\$0	\$0	\$0	\$0	\$0	\$0
STAFF	\$0	\$0	\$0	\$0	\$0	\$0
OTHER	\$0	\$0	\$0	\$0	\$0	\$0
TOTAL	\$0	\$0	\$0	\$0	\$0	\$0

SOURCES OF FUNDS AVAILABLE FOR PROGRAM SUPPORT						
	Year 1	Year 2	Year 3	Year 4	Year 5	TOTAL
INTERNAL REALLOCATIONS	\$0	\$0	\$0	\$0	\$0	\$0
EXTRAMURAL*	\$0	\$0	\$0	\$0	\$0	\$0
TUITION	\$0	\$0	\$0	\$0	\$0	\$0
TOTAL	\$0	\$0	\$0	\$0	\$0	\$0

\*Extramural funds from \_\_\_\_\_

ENROLLMENT AND DEGREE COMPLETION PROJECTIONS						
	Year 1	Year 2	Year 3	Year 4	Year 5	5-YEAR AVERAGE
TOTAL HEADCOUNT ENROLLMENT	8	15	17	19	21	16
NEW ENROLLMENT HEADCOUNT	8	9	10	11	12	10

DEGREE COMPLETION  
PROJECTIONS

0	6	7	8	9	8
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4-YEAR  
AVERAGE

G. Program Need Justification

1. Will the program satisfy a clearly documented workforce need?

Occupational forecast data indicates employers within Shelton State’s service area will need to fill 149 welding related positions over the next 10 years. As a result of this workforce need, the welding program at SSCC consistently experiences enrollment equivalent to the programs maximum student capacity as a result of the regional’s workforce need for individuals trained in welding. While the addition of an AAS option will not impact SSCC’s Welding program enrollment or the number of SSCC graduates trained in welding, a higher level award may provide graduates with opportunities for advancement not currently available to individuals lacking a college degree.

2. What characteristics of the identified need require that it be met by a new program rather than an existing program?

The highest academic award in Welding currently available to SSCC students is a Certificate. Approximately half of the students enrolled in SSCC’s welding program desire an opportunity to obtain an AAS degree in Welding. Additionally, the articulation agreement between SSCC and the United Association of Journeymen and Apprentices of Plumbing and Pipe Fitting (UA), supports the addition of an advanced Welding award. The articulation agreement allows SSCC Welding graduates to enter the UA Apprenticeship training program with advanced placement and pay. The UA Apprenticeship training center in Tuscaloosa Alabama, Local 372 (LU 372), fully supports the addition of an AAS degree in Welding and prefers their apprentices obtain an AAS degree in Welding over a Certificate (see LU 372 support letter-APPENDIX E).

3. Based on research on the employment market for graduates of this program, indicate the total projected job openings (including both growth and replacement demands). These job openings should represent positions that require graduates from a program such as the one proposed.

**Projected Job Openings**

	<b>Year 1</b>	<b>Year 2</b>	<b>Year 3</b>	<b>Year 4</b>	<b>Year 5</b>	<b>Total</b>
<b>College Service Area</b>	20	20	20	20	20	100
<b>State</b>	380	380	380	380	380	1900

4. Provide the methodology used to determine the projected job openings (such variables as (a) assurance of adequate employer surveys, (b) business/industry markets, and (c) response rate. Cite all relevant sources. If a survey of employment needs was used attach a copy of the survey instrument with a **summary** of results as **APPENDIX C. Do not submit copies of the individual survey responses.**

Projected job openings are based on College Service Area and State of Alabama occupational forecasts provided from the Alabama Department of Labor and employment data provided by the Alabama Community College System. As the addition of an AAS degree in Welding will not increase program capacity or number of SSCC graduates trained in welding, industry market surveys were not conducted [thus APPENDIX C has been omitted].

5. List other similar programs that are available at other institutions in the state. Will any type of program collaboration be utilized? Why or why not? What specific efforts have been made to collaborate with institutions to meet the need for this program?

Multiple institutions within the Alabama Community College System (ACCS) offer Associate level degrees in Welding. Both Associate in Applied Science and Associate of Occupational Technology degree programs exist across nine ACCS institutions. Due to the common course directory, coursework is transferable across the ACCS system. Beyond transfer of coursework within the ACCS system, no additional collaboration will exist as the nature of Welding program requires hands-on lab based learning.

While no four-year institutions within SSCC's service region offer Welding programs, the United Association of Journeymen and Apprentices of Plumbers and Pipefitters (UA) operates a training center in Tuscaloosa County, Local 372. SSCC has an existing articulation agreement with the Local 372 which allows SSCC Welding graduates to enter the UA apprenticeship program with advanced placement.

6. Method of program delivery (traditional classroom, online, hybrid). If online/hybrid delivery is available, estimate percentage. List courses delivered via online/hybrid

Program delivery methods for WDT coursework will include traditional classroom and traditional laboratory due to the hands-on nature of the curriculum. The general education coursework across Areas I-IV can be completed through traditional classroom, traditional laboratory, online instruction, and/or hybrid instruction.

#### H. Program Resource Requirements

1. Number of faculty required to teach in the program: Full-time 2 Part-time 0

Attach a synopsis of the qualifications (degrees, experience, etc.) of each faculty member to this proposal as **APPENDIX D**. Do not attach entire curriculum vitae.

The college employs two Full-time Welding instructors. As the addition of an AAS degree in Welding will involve changes to general education requirements only, existing faculty are sufficient to meet the instructional needs of the proposed program.

2. List any special equipment that is necessary for this program, indicating what is currently available, what will be added, and the cost of additional equipment.

As SSCC currently operates a Welding Certificate program and no changes will occur within the technical Area V curriculum, no additional equipment is required.



3. Describe facilities for the program, indicating what is currently available and any necessary renovations or additional facilities that would be added. Provide a cost estimate for any renovation or additions.

If clinical sites are required, provide signed agreements between the institution and the host facility. At a minimum, the total number of slots should equal the projected number of students cited above.

The Welding facilities include 36 welding booths, plasma table, a band saw, 36 electric welding machines, 10 diesel welding machines, and a drill press. As the addition of an AAS degree in Welding will involve additional academic requirements only, program enrollment and capacity will not be impacted thus no facility renovations or additions are needed.

4. Provide the current status of the library collections supporting the proposed program.

The Brooks-Cork Library on the Martin Campus of SSCC contains 40 items to support students enrolled in Welding coursework. The items include 26 books, 13 audio/video resources, and 1 eBook. In addition to the physical library collection, SSCC subscribes to *Credo Reference*, which provides students with access to 846 reference books containing over 3 million articles. As SSCC is a state agency, students also have access to the Alabama Virtual Library, a vast database of vetted academic resources. A brief search of “welding” within one AVL database (EBSCOhost) yielded 38,389 results. With both physical and virtual computer science resources available to students, library collections are sufficient to meet the needs of a Welding program.

## Employment Verification Form

### Shelton State Community College

(College)

### Welding

(Program of Study)

We have reviewed the employment demand for Welding specialties at selected businesses in Shelton State Community College's service area and in Alabama. We are confident that the employment needs for Welding personnel who possess the skills acquired in such a program of instruction could best be classified as:

**High Demand**    **Moderate Demand**    **Low Demand**    **Critical Shortage**

In addition, we have examined and recommended requirements for admissions, content of the specialties and appropriate general education, program length, method of evaluation, and the skills and/or proficiency required for completion.

EMPLOYERS: (In Welding and in directly-related fields)

#### Employer A

High Demand

Name: Harold Parker

Title: Director of Workforce Development

Company Name: M<sup>c</sup>Abee Construction Inc.

Address: 5724 21<sup>st</sup> Street Tuscaloosa, AL

Zip Code: 35403

Signature: \_\_\_\_\_

#### Employer B

High Demand

Name: Will Marable

Title: Vice President and Training Coordinator

Company Name: Local 372 Training Center

Address: 3888 Greensboro Ave, Tuscaloosa, AL

Zip Code: 35405

Signature: \_\_\_\_\_

#### Employer C

High Demand

Name: Judson Minges

Title: Owner & President

Company Name: Cain Steel

Address: P.O. Box 1369

Zip Code: 35401

Signature: \_\_\_\_\_

#### Employer D

High Demand

Name: Sara Lavender

Title: Head of Recruiting

Company Name: Lavender Inc.

Address: 1056 Industrial Drive, Aliceville, AL

Zip Code: 35442

Signature: \_\_\_\_\_

#### Employer E

\_\_\_\_\_ Demand

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Company Name: \_\_\_\_\_

Address: \_\_\_\_\_

Zip Code: \_\_\_\_\_

Signature: \_\_\_\_\_

#### Employer F

\_\_\_\_\_ Demand

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Company Name: \_\_\_\_\_

Address: \_\_\_\_\_

Zip Code: \_\_\_\_\_

Signature: \_\_\_\_\_

