

of all previous course work listed in the Surgical Technology certificate plan with a grade of “C” or better. This course requires concurrent enrollment in SRGT 1442, and both courses must be passed with a “C” or better within the same semester.

## Welding

Graduates will receive a certificate of completion from Paris Junior College. Also, students must test for the AWS Structural Steel Welding Certificate. This is administered by a representative of the American Welding Society on the PJC campus. The test is used for program evaluation purposes only. Students are not required to pass the test to complete the certificate. The PJC Structural Steel Welding certificate is a stand-alone certificate, but it is also the prerequisite for the Pipe Welding and Advanced Welding Shop Technology certificates.

For the Pipe Welding Certificate, students must have completed the PJC Structural Steel Welding Certificate with a minimum average of 3.0 on a 4.0 scale. Students must test for the ASME Pipe Welding Certificate. This certification test will be administered by a representative of the American Society of Mechanical Engineers on the PJC campus. The test is used for program evaluation purposes only. Students are not required to pass the test to complete the certificate.

Additionally, students could earn an Associated of Applied Science degree with the completion of selected academic courses.

### AAS in Welding Technology (64 Credit Hours)

First Semester	Second Semester
PSYC 1100 or EDUC 1100 WLDG 1425 WLDG 1428 WLDG 1430 WLDG 1457 WLDG 2443	WLDG 1417 WLDG 1434 WLDG 1435 WLDG 2406 WLDG 2453
Third Semester	Fourth Semester
MATH 1314 or higher GOVT 2305 or GOVT 2306 COSC 1401 or ITSC 1409* DFTG 1405	SPCH 1321 or SPCH 1315 ENGL 1301 Visual/Fine Arts Elective

\* Tech Prep courses, which may have been completed in high school.

### CERTIFICATE IN STRUCTURAL STEEL WELDING (21 Credit Hours)

#### First Semester

PSYC 1100 or EDUC 1100 ..... Learning Frameworks  
 WLDG 1425..... Introduction to oxy-fuel welding

WLDG 1428.....	Introduction to shield manual arc welding
WLDG 1457.....	Intermediate shielded manual arc welding
WLDG 1430.....	Introduction to metal inert gas welding
WLDG 2443.....	Advanced shielded manual arc welding

### CERTIFICATE IN PIPE WELDING (20 Credit Hours)

#### First semester

WLDG 1435.....	Introduction to pipe welding
WLDG 2406.....	Intermediate pipe welding
WLDG 2453.....	Advanced pipe welding
WLDG 1434.....	Introduction to TIG welding
WLDG 1417.....	Introduction to layout and fabrication

**Note:** All Structural Steel Welding courses must be taken as prerequisites to Pipe Welding courses.

### CERTIFICATE IN ADVANCED WELDING SHOP TECHNOLOGY (20 Credit Hours)

#### First Semester

WLDG 2439.....	Advanced oxy-fuel cutting and welding
WLDG 1453.....	Intermediate layout and fabrication
WLDG 2435.....	Advanced layout and fabrication
WLDG 2413.....	intermediate welding using multiple processes
WLDG 1491.....	Special topics

**Note:** All Structural Steel Welding & Pipe Welding courses must be taken as prerequisites to Advanced Welding Shop Technology courses.

<b>WLDG 1425</b>	<b>Introduction to Oxy-Fuel Welding &amp; Cutting</b>	<b>4.2.4</b>
	An introduction to oxy-fuel welding and cutting, safety, setup and maintenance of oxy-fuel welding, and cutting equipment and supplies. Fee Charged.	
<b>WLDG 1491</b>	<b>Special Topics in Welder/Welding Technologist</b>	<b>4.2.4</b>
	Topics address recently identified current events, skills, knowledge, and/or attitudes and behaviors pertinent to the technology or occupation and relevant to the professional development of the student. Fee Charged.	
<b>WLDG 2406</b>	<b>Intermediate Pipe Welding</b>	<b>4.2.4</b>
	A comprehensive course on the welding of pipe using the shielded metal arc welding (SMAW) process. Position of welds will be 1G, 2G, 5G, and 6G using various electrodes. Topics covered include electrode selection, equipment setup, and safe shop practices. Fee Charged.	
<b>WLDG 1417</b>	<b>Introduction to Layout and Fabrication</b>	<b>4.2.4</b>
	A fundamental course in layout and fabrication related to the welding industry. Major emphasis on structural shapes and use in construction. Fee Charged.	
<b>WLDG 1428</b>	<b>Introduction to Shield Metal Arc Welding (SMAW)</b>	<b>4.2.4</b>
	An introduction to shielded metal arc welding process. Emphasis placed on power sources, electrode selection, oxy-fuel cutting, and various joint designs. Instruction provided in SMAW fillet welds in various positions. Fee Charged.	

- WLDG 1430 Introduction to Gas Metal Arc (GMAW) Welding** 4.2.4  
A study of the principles of gas metal arc welding, setup and use of GMAW equipment, and safe use of tools/equipment. Instruction in various joint designs. Prerequisite: WLDG 1428, 1457, 2443, or approval of instructor. Fee Charged.
- WLDG 1434 Introduction to Gas Tungsten Arc (GTAW) Welding** 4.2.4  
An introduction to the principles of gas tungsten arc welding (GTAW), setup/ use of GTAW equipment, and safe use of tools and equipment. Welding instruction in various positions on joint designs. Fee Charged.
- WLDG 1435 Introduction to Pipe Welding** 4.2.4  
An introduction to welding of pipe using the shielded metal arc welding process (SMAW), including electrode selection, equipment setup, and safe shop practices. Emphasis on weld positions 1G and 2G using various electrodes. Fee Charged.
- WLDG 1453 Intermediate Layout and Fabrication** 4.2.4  
A continuation of the introductory Layout and Fabrication course which covers design and production of shop layout and fabrication. Emphasis placed on symbols, blueprints, and written specifications. Prerequisites: WLDG 1425, 1428. Fee Charged.
- WLDG 1457 Intermediate Shielded Metal Arc Welding (SMAW)** 4.2.4  
A study of the production of various fillets and groove welds. Preparation of specimens for testing in all test positions. Prerequisites: WLDG 1428 or approval of instructor. Fee Charged.
- WLDG 2413 Intermediate Welding Using Multiple Processes** 4.2.4  
Instruction using layout tools and blueprint reading with demonstration and guided practices with some of the following welding processes: oxy-fuel gas cutting and welding, shield metal arc welding (SMAW), gas metal arc welding (GMAW), flux-cored arc welding (FCAW), gas tungsten arc welding (GTAW), or any other approved welding process. Fee Charged.
- WLDG 2435 Advanced Layout and Fabrication** 4.2.4  
A continuation of the Intermediate Layout and Fabrication course which covers production and fabrication of layout tools and processes. Emphasis on application of fabrication and layout skills. Fee Charged.
- WLDG 2439 Advanced Oxy-Fuel Welding and Cutting** 4.2.4  
A study of all position welding on ferrous and nonferrous metals using oxy-fuel welding process, including welding and cutting, brazing, and soldering operations. Fee Charged.
- WLDG 2443 Advanced Shielded Metal Arc Welding (SMAW)** 4.2.4  
Advanced topics based on accepted welding codes. Training provided with

various electrodes in shielded metal arc welding processes with open V-groove joints in all positions.

**WLDG 2453 Advanced Pipe Welding**

4.2.4

Advanced topics involving welding of pipe using the shielded metal arc welding (SMAW) process. Topics include electrode selection, equipment setup, and safe shop practices. Emphasis on weld positions 5G and 6G using various electrodes. Fee Charged.