

# WEL WELDING

	Hr/Wk		
	Lect/	Clin	Sem
	Disc	Lab	Cr
<b>Courses</b>			
<b>WEL.125 Welding Blueprints</b>	1.5	1	2
<p>This course provides an introduction to blueprint reading and related math for those individuals with limited or no background. Emphasis will be on welding prints, symbols, and mathematics pertinent to the welding field. Current welding prints from local businesses will be utilized throughout the course. This course is intended for welding majors or current welding employees seeking to improve their skills in these areas. Offered: Fall or Spring</p> <p>Applicable toward graduation at Sandburg where program structure permits: Degree or Certificate: AAS, AGS, and Certificates where applicable (1.2). General Education -- Not Applicable</p>			
<b>WEL.126 Weld Test Evaluation</b>	1	4	3
<p>This is a course designed to prepare students for employment by allowing them to practice skills already learned in preparation for acceptable completion of entry level qualification tests given in various welding processes at local welding businesses. The final exam for this course is the level 1 - AWS certification examination. Offered: Fall or Spring</p> <p>Prerequisites: WEL.172 with a grade of C or better or concurrent enrollment.</p> <p>Applicable toward graduation at Sandburg where program structure permits: Degree or Certificate: AAS, AGS, and Certificates where applicable General Education: Not Applicable (1.2). General Education -- Not Applicable</p>			
<b>WEL.160 Oxyacetylene Welding &amp; Metal Preparation</b>	1	4	3
<p>This course is designed to develop proficiency in metal preparation and cutting techniques, as well as develop basic welding skills. Information provides aid in selecting the correct process since this is directly related to the metal being cut and/or welded. Emphasis will be placed upon: Oxy-fuel cutting (OFC), plasma arc-cutting (PAC), carbon arc-cutting (CAC-A) and oxy-acetylene welding (OAW) processes, Nomenclature specific to these processes, and safety, weld quality control, and other related welding information. Offered: Fall or Spring</p> <p>Applicable toward graduation at Sandburg where program structure permits: Degree or Certificate: AAS, AGS, and Certificates where applicable (1.2). General Education -- Not Applicable</p>			

<b>WEL.162 Arc Welding Basics</b>	1	4	3
<p>This course is designed to prepare the student for entry level employment as a production arc welding operator in the steel fabricating and machinery building industry. The student will develop proficiency in the safe operation of the manual metallic shielded arc welding processes to meet commercial quality standards and is devoted to welding mild steel in the down hand positions. Areas of concentration will include: SMAW process, Nomenclature and definitions specific to this process, and Safety, weld quality control, and other related welding information. Offered: Fall or Spring</p> <p>Prerequisites: Take WEL.160 with a grade of C or better or concurrent enrollment.</p> <p>Applicable toward graduation at Sandburg where program structure permits: Degree or Certificate: AAS, AGS, and Certificates where applicable (1.2). General Education -- Not Applicable</p>			
<b>WEL.164 Arc Welding Advanced</b>	1	4	3
<p>This course is a continuation of WEL 162 and provides information that is needed by all persons advancing in the field of welding. The focus of this course is correctly matching the welding process to the metal being welded. The processes are explained in detail and the course provides quality control data and reference material that is of high interest to welding personnel. Areas of concentration will include: Shielded Metal Arc Welding (SMAW) process and advanced welding techniques, Nomenclature and definitions specific to this process, and safety, weld quality control, and other related welding information. Offered: Fall or Spring</p> <p>Prerequisites: Take WEL.162 with a grade of C or better.</p> <p>Applicable toward graduation at Sandburg where program structure permits: Degree or Certificate: AAS, AGS, and Certificates where applicable (1.2). General Education -- Not Applicable</p>			
<b>WEL.166 Gas Shielded Arc Tig</b>	1	4	3
<p>This course provides information that is needed by all persons going into the field of welding. Much information provides aids in selecting the correct process since this is directly related to the metal being welded. The processes are explained in detail and the course provides quality control data and reference material that is of high interest to welding personnel. Areas of concentration will include: GTAW process, Nomenclature and definitions specific to this process, and safety, weld quality control, and other related welding information. Areas of concentration will include: . Gas tungsten arc welding (GTAW) process, . Nomenclature and definitions specific to this process, and . Safety, weld quality control, and other related welding information. Offered: Fall or Spring</p> <p>Prerequisites: Take WEL.164 with a grade of C or better or concurrent enrollment.</p> <p>Applicable toward graduation at CSC where program structure permits: Degree or Certificate: AAS, AGS, and Certificates where applicable (1.2). General Education -- Not Applicable</p>			

**WEL.168 Gas Shielded Arc Mig** 1 4 3

This course provides information that is needed by all persons going into the field of welding. Much information provides aids in selecting the correct process since this is directly related to the metal being welded. The processes are explained in detail and the course provides quality control data and reference material that is of high interest to welding personnel. Areas of concentration will include: GMAW process, nomenclature and definitions specific to this process, and Safety, weld quality control, and other related welding information.

Offered: Fall or Spring

Prerequisites: Take WEL.166 with a grade of C or better.

Applicable toward graduation at Sandburg where program structure permits: Degree or Certificate: AAS, AGS, and Certificates where applicable (1.2).

General Education -- Not Applicable

**WEL.170 Applications of GMAW & FCAW** 1 4 3

This course provides information that is needed by all persons going into the field of welding. The focus of this course is correctly matching the welding process to the metal being welded. The processes are explained in detail and the course provides quality control data and reference material that is of high interest to welding personnel. Areas of concentration will include: Advanced gas metal arc welding (GMAW) and flux cored arc welding (FCAW) processes, nomenclature and definitions specific to this process, and safety, weld quality control, and other related welding information.

Offered: Fall or Spring

Prerequisites: Take WEL.168 with a grade of C or better or concurrent enrollment.

Applicable toward graduation at Sandburg where program structure permits: Degree or Certificate: AAS, AGS, and Certificates where applicable (1.2).

General Education -- Not Applicable

**WEL.172 Welding Applications** 1 4 3

This course provides information that is needed by all persons going into the field of welding. The focus of this course is correctly matching the welding process to the metal being welded. The processes are explained in detail and the course provides quality control data and reference material that is of high interest to welding personnel. Areas of concentration will include: Fabrication and layout, nomenclature and definitions specific to this process, and safety, weld quality control, and other related welding information.

Offered: Fall or Spring

Prerequisites: Take WEL.170 with a grade of C or better.

Applicable toward graduation at Sandburg where program structure permits: Degree or Certificate: AAS, AGS, and Certificates where applicable (1.2).

General Education -- Not Applicable