

Associate in Applied Science and Career Certificates

Welding

Engineering, Math and Physical Sciences Division
Room T302, (847) 543-2044

Welding Technology

(Associate in Applied Science) Plan 24WP

This degree program combines training with classes in the background knowledge needed by workers in welding occupations. Students practice and develop welding skills in the laboratory and may take an examination for certification. The program is for those who want to acquire the technical knowledge and skills required for workers in welding, fabrication, and related occupations. As a graduate of the Welding program, students may qualify for positions in business and industry such as machinery fabrication, structural fabrication, welding fitting and layout, automatic and semiautomatic welding, automatic flame cutter operation, millwright welding, plant maintenance, and quality control and development. The program offers students a background in manufacturing materials, processes, and systems, including shear and press brake operation, blueprint reading, and shop drawing and layout. The curriculum includes written and oral communications and general education classes and emphasizes related scientific, mathematical, and general mechanical principles.

Required General Education Coursework15

ENG	120	Technical Composition I <i>or</i>	
ENG	121	English Composition I.....	3
MTH	114	Applied Mathematics I <i>or</i>	
		Higher Level Math	3
CMM	111	Communication Skills	3
ECO	110	Economics for Business and Industry	3
		Humanities or Fine Arts Elective	3

Additional Required Coursework43

MET	111	Manufacturing Processes.....	3
MET	112	Basic Metallurgy I.....	3
CNC	111	Geometric Dimensioning and Tolerancing.....	1
MTT	112	Machining Principles	3
WLD	113	Welding Blueprint Reading	3
WLD	117	Applied Fabricating Processing	3
WLD	170	General Welding	3
WLD	171	Gas Weld Cutting and Brazing	3
WLD	172	Shielded Metal Arc Welding	3
WLD	174	Adv Shielded Metal Arc Welding	3

WLD	175	Gas Metal Arc Welding	3
WLD	176	Welding Certification	3
WLD	178	Gas Tungsten Arc Welding.....	3
WLD	179	Gas Tungsten Arc Welding II	3
CAD	117	Introduction to AutoCAD	3

Select 3 hours from the list below with advisor approval.

CAD	170	Introduction to SolidWorks	3
MTT	111	Machine Shop I	3
LPO	111	Fundamentals of Light and Lasers	3

Total Hours for A.A.S.61

Welding

(Certificate) Plan 24WL

This certificate program and the specialty certificates prepare the student for employment and advancement in welding and welding related occupations. Advanced standing in the program can be arranged for experienced welders.

MET	112	Basic Metallurgy.....	3
MET	113	Basic Metallurgy II <i>or</i>	
MET	111	Manufacturing Processes.....	3
MTH	114	Applied Mathematics I.....	3
WLD	113	Welding Blueprint Reading	3
WLD	117	Applied Fabricating and Processing	3
WLD	170	General Welding	3
WLD	171	Gas Welding, Cutting and Brazing	3
WLD	172	Shielded Metal Arc Welding	3
WLD	174	Advanced Shielded Metal Arc Welding	3
WLD	175	Gas Metal Arc Welding	3
WLD	176	Welding Certification	3
WLD	178	Gas Tungsten Arc Welding.....	3
WLD	179	Gas Tungsten Arc Welding II	3
		Technical Elective*	2-3

Total Hours for Certificate41-42

Welding Electives

Select 2-3 hours from the list below with advisor approval:

CAD	110	CAD/CAM Concepts	3
EET	170	DC Circuit Fundamentals	2
EGR	121	Engineering Graphics	3
ELC	172	Applied AC Circuit Theory	2
EWE	120	Job Readiness Skills	1
EWE	220	Cooperative Work Experience I	2
MTT	111	Machine Shop I	3

Gainful Employment Information: www.clcillinois.edu/gewld

The following three specialty certificates allow students to attain proficiency to meet more specific job requirements or career objectives in welding and welding related occupations.

**Gas Tungsten Arc Welding
(Certificate) Plan 24WM**

MTH	114	Applied Mathematics I.....	3
WLD	113	Welding Blueprint Reading	3
WLD	117	Applied Fabricating and Processing	3
WLD	170	General Welding	3
WLD	171	Gas Welding, Cutting and Brazing	3
WLD	176	Welding Certification	3
WLD	178	Gas Tungsten Arc Welding.....	3
WLD	179	Gas Tungsten Arc Welding II	3

Total Hours for Certificate24

Gainful Employment Information: www.clcillinois.edu/gewld

**Gas Metal Arc Welding
(Certificate) Plan 24WN**

MTH	114	Applied Mathematics I.....	3
WLD	113	Welding Blueprint Reading	3
WLD	117	Applied Fabricating and Processing	3
WLD	170	General Welding	3
WLD	175	Gas Metal Arc Welding	3
WLD	176	Welding Certification	3

Total Hours for Certificate18

Gainful Employment Information: www.clcillinois.edu/gewld

**Shielded Metal Arc Welding
(Certificate) Plan 24WO**

MTH	114	Applied Mathematics I.....	3
WLD	113	Welding Blueprint Reading	3
WLD	117	Applied Fabricating and Processing	3
WLD	170	General Welding	3
WLD	172	Shielded Metal Arc Welding	3
WLD	174	Advanced Shielded Metal Arc Welding	3
WLD	176	Welding Certification	3

Total Hours for Certificate21

Gainful Employment Information: www.clcillinois.edu/gewld

For more information on recommended courses or program specific advising, contact faculty member Gary Merriman or the Engineering, Math and Physical Science division at (847) 543-2044.