

Program Requirements 2012-2013 CATALOG

WELDING—JOINING TECHNOLOGY ASSOCIATE DEGREE

Schoolcraft program code # AAS.00082

There is an ever increasing need for persons today that possess skills, both in welding and metallurgy. Materials of industry and new technology require highly skilled persons that understand material sciences, metallurgy, and the joining processes used to produce optimum quality fabrications. The quality conscience industry of today demands certified people that can perform tasks from the simplest, to more complex technical applications. The courses selected in this program will give the student the required skills needed to perform, both hands on and analytical tasks required by modern industrial technology.

All courses are not offered each semester. Students should work with the Counseling Center to set up a schedule that will work for them. Students who satisfactorily complete all College Requirements qualify for an Associate in Applied Science Degree.

SAMPLE SCHEDULE OF COURSES

FIRST YEAR		Fall Semester	
ENG 100	Communication Skills	.....	3
MET 102	Introduction to Materials Science	.....	3
WELD 113	Shielded Metallic Arc Welding (S.M.A.W.)	.....	3
WELD 115	Gas Metallic Arc Welding (G.M.A.W./M.I.G.)	.....	3
HUM 106	Introduction to Art and Music	.....	1
			13
		Winter Semester	
ENG 106	Business English	.....	3
Mathematics	Select I	.....	3-4
MATH 101	Business Mathematics		
MATH 111	Applications—Utility of Math		
WELD 119	Gas Tungsten Inert Arc Welding (G.T.A.W./T.I.G.)	....	3
WELD 120	Advanced Processes—Stick Electrode and M.I.G. Welding	.....	3
			12-13
		Spring Session	
WELD 205	Welder's Print Reading	.....	2
Social Science	Select I	.....	3
PSYCH 153	Human Relations (recommended)		
POLS 105	Survey of American Government		
SOC 201	Principles of Sociology		
			5
		Summer Session	
WELD 206	Welding Inspection and Qualification	.....	2

SECOND YEAR Fall Semester

MFG 102	Basic Machining Processes	.....	3
MET 114	Engineering Materials	.....	3
MET 152	Structure and Properties Laboratory	.....	3
WELD 130	Advanced Processes—Gas Tungsten	.....	3
			12

Winter Semester

WELD 118	Adhesive Joining Technology	.....	4
WELD 262	Welding Metallurgy	.....	3
Science*	Select any General Education Science course	....	3-5
MET 211	Physical Metallurgy Structures	.....	3
			13-15

Spring Session

WELD 210-214	Exam Preparation—Select from the list below	3
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Summer Session

WELD 223	Fabrication	4
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PROGRAM TOTAL 64-67 CREDITS

ELECTIVE (OPTIONAL)

WELD 111	Project Mathematics	4
WELD 112	Contemporary Metal Sculpture I	.....	3

EXAM PREPARATION: (SELECT ONE)

WELD 210	Preparation for Welder Certification in Shielded Metallic Arc Welding (S.M.A.W.)	.....	3
WELD 211	Preparation for Welder Certification in Gas Metallic Arc Welding (G.M.A.W./M.I.G.)	.....	3
WELD 212	Preparation for Welder Certification in G.T.A.W./T.I.G.	.....	3
WELD 214	Preparation for Welder Certification in Pipe Welding	.....	3

Exams will also be provided on an individual basis.

* Number of credits may vary depending on the General Education Science course selection.

Students planning to transfer should check the transfer institution's requirements/guides or discuss their options with a counselor or advisor. Number of credits may vary depending on the course selection

Virtually any program at Schoolcraft College can be a transfer program if you plan to continue at a four-year institution to earn a bachelor's degree in your major. Visit www.schoolcraft.edu/transfer for information about transfer options. To ensure that the Schoolcraft courses you select are the specific ones required by the four-year college of your choice, be sure to consult regularly with your counselor/advisor.

WELDING—FABRICATION CERTIFICATE

Schoolcraft program code # 1YC.00127

The Welding-Fabrication Program prepares students for employment under classifications such as welders and/or industrial fabrications. The program includes joining materials, using weldments, special techniques, equipment and other recognized fastening methods. Students acquire skills in the broad categories of welding and fabrication with added emphasis upon support technical subjects.

Students are required to purchase protective clothing, protective (safety) shoes and eye protection equipment.

All courses are not offered each semester. Students should work with the Counseling Center to set up a schedule that will work for them. Students who satisfactorily complete the Program Courses qualify for a Certificate of Program completion.

SAMPLE SCHEDULE OF COURSES

FIRST YEAR

Fall Semester

WELD 113	Shielded Metallic Arc Welding (S.M.A.W.)	3
WELD 115	Gas Metallic Arc Welding (G.M.A.W./M.I.G.)	3
WELD 119	Gas Tungsten Inert Arc Welding (G.T.A.W./T.I.G.)	3

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Winter Semester

WELD 111	Project Mathematics	4
WELD 120	Advanced Processes—Stick Electrode and M.I.G. Welding	3
WELD 130	Advanced Processes—Gas Tungsten	3
MET 102	Introduction to Materials Science	3

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Spring Session

WELD 205	Welder's Print Reading	2
WELD 210-214	Exam Preparation— <i>Select from the list below</i>	3

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Summer Session

WELD 206	Welding Inspection and Qualification	2
WELD 223	Fabrication	4

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PROGRAM TOTAL 33 CREDITS

ELECTIVE (OPTIONAL)

WELD 111	Project Mathematics	4
WELD 112	Contemporary Metal Sculpture I	3

EXAM PREPARATION: (SELECT ONE)

WELD 210	Preparation for Welder Certification in Shielded Metallic Arc Welding (S.M.A.W.)	3
WELD 211	Preparation for Welder Certification in Gas Metallic Arc Welding (G.M.A.W./M.I.G.)	3
WELD 212	Preparation for Welder Certification in G.T.A.W./T.I.G.	3
WELD 214	Preparation for Welder Certification in Pipe Welding	3

Exams will also be provided on an individual basis.

Go to www.schoolcraft.edu/academicprograms to see the Gainful Employment Disclosure which includes additional information about this program, such as program costs, student graduation rates, and the median debt of students who complete the program.



