

2021-22 ACADEMIC PROGRAMS

INDUSTRIAL TRAINING (ASINDT)

Associate in Science

This program gives indentured journeymen of the United Association, the opportunity to apply their work as certified apprentice instructors toward an associate in science degree in Industrial Training. Students will complete the general education courses, 5 summer instructor training sessions, and receive non-traditional credits for experience in an area of specialization such as plumbing, pipefitting, HVAC and sprinkler fitting.

This associate in science degree in construction requires a few more general education classes than the related associate in applied science degree. It's the best choice for transferring to a 4-year college or university for a bachelor's degree.

This is a **high demand, high skill** and **high wage** program as defined by the [Michigan Community College Network](#).

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Program is also available online

Description

This program gives indentured journeymen of the United Association or Ironworkers, the opportunity to apply their work as certified apprentice instructors toward an associate in science degree in Industrial Training. Students will complete the general education courses, five summer instructor training sessions, and receive prior learning credits for experience in an area of specialization such as plumbing, pipefitting, HVAC, sprinkler fitting and ironworking.

Articulation

Eastern Michigan University, several BS degrees;
Ferris State University, Bachelor degree.

Copies can be obtained from the Counseling Office, a program advisor, or from the Curriculum and Assessment Office Web site: <https://www.wccnet.edu/learn/transfer-wcc-credits/articulation-agreements.php>.

Admissions Requirements

Open only to United Association and Ironworker instructors.

Course Requirements

Major/Area Requirements

Class	Title	Minimum Credits
	UA students must complete a minimum 12 additional credits from a combination of required teaching methods courses and technical update courses (UAT courses).	12
	Ironworker students must complete 15 credits from a combination of required teaching methods courses and technical update courses (IWT courses).	
Total		12

General Education Requirements

Class	Title	Minimum Credits
Writing	Elective(s)	6
UAT 210	Public Speaking*	1.5
UAT 213	Planning, Teaching and Assessing Effective Lessons - Advanced*	1.5
Math	Elective(s)	3
Nat. Sci.	Elective(s)	3
	Nat. Sci. Lab Elective(s)	3
Soc. Sci.	Elective(s)	6
Arts/Human.	Elective(s)	6
	General Education Elective(s) (0-2 credits) to reach a minimum 30 General Education Credits	2
Total		32

Total Credits Required: 44

Accurate as of 09/24/2021 Information is subject to change without notice.

Concentrations**Architectural and Ornamental Ironworker (AOIW)**

Class	Title	Minimum Credits
IWA 120	Introduction to Ironwork	3
IWA 122	Ironworker - General Rigging	2
IWA 131	Introduction to Metal Building	2
IWA 161	Introduction to Architectural and Ornamental Ironwork	2
IWA 201	Introduction to Welding	3
IWA 224	Labor and Trade History	1
IWA 265	Advanced Architectural and Ornamental Ironwork	6
Total		19

Total Credits Required: 63**HVAC Specialty (HVTC)**

Class	Title	Minimum Credits
UAE 140	Introduction to HVACR Service Technician Practices	3
UAE 142	Soldering and Brazing	3
UAE 144	Refrigeration	2
UAE 146	Air Conditioning	2
UAE 148	Electrical Controls	2
UAE 150	DC Electronics	2
UAE 152	Advanced Electrical Controls and Pneumatic Controls	3
UAE 154	Advanced Air Conditioning and Refrigeration	3
UAE 156	Air and Water Balancing and Motor Alignment	3
UAE 158	Advanced HVACR Practices	3
Total		26

Total Credits Required: 70**Journeyman Ironworker (JMIW)**

Class	Title	Minimum Credits
IWA 120	Introduction to Ironwork	3
IWA 122	Ironworker - General Rigging	2
IWA 131	Introduction to Metal Building	2
IWA 141	Introduction to Reinforcing Ironwork	3
IWA 155	Rigging/Machinery Mover II	3
IWA 161	Introduction to Architectural and Ornamental Ironwork	2
IWA 172	Introduction to Structural Features	4
IWA 201	Introduction to Welding	3
IWA 224	Labor and Trade History	1
IWA 272	Advanced Structural Features	3
Total		26

Total Credits Required: 70**Metal Building Erector (MTBE)**

Class	Title	Minimum Credits
IWA 120	Introduction to Ironwork	3
IWA 122	Ironworker - General Rigging	2
IWA 131	Introduction to Metal Building	2
IWA 161	Introduction to Architectural and Ornamental Ironwork	2
IWA 172	Introduction to Structural Features	4
IWA 201	Introduction to Welding	3
IWA 224	Labor and Trade History	1
IWA 235	Advanced Metal Building	2
Total		19

Total Credits Required: 63**Pipefitter Specialty (PIPE)**

Class	Title	Minimum Credits
UAF 102	Introduction to Arc Welding, Soldering, and Brazing	3
UAF 120	Introduction to Pipefitter Practices	3
UAF 122	Drawing Interpretation and Plan Reading	2
UAF 124	Oxy Fuel Cutting and Shielded Arc Welding	2
UAF 126	Hydronic Heating and Steam Systems	2
UAF 128	Refrigeration and Electrical Controls	2

UAF 130	Advanced SMAW Welding	3
UAF 132	Advanced Pipefitter Topics	3
UAF 134	Controls and Instrumentation	3
UAF 136	GTAW Welding	3
Total		26

Total Credits Required: 70

Plumber Specialty (PLUM)

Class	Title	Minimum Credits
UAP 100	Introduction to Plumbing Practices	3
UAP 102	Introduction to Arc Welding, Soldering and Brazing	3
UAP 104	Drawing Interpretation and Plan Reading	2
UAP 106	Oxy Fuel Cutting and Shielded Arc Welding	2
UAP 108	Water Supply and Drainage	2
UAP 110	Customer Service Techniques	2
UAP 112	Plumbing Fixtures and Appliances	3
UAP 114	Plumbing Codes and Regulations	3
UAP 116	Medical Gas and Backflow Prevention Techniques	3
UAP 118	Advanced Plumbing Practices	3
Total		26

Total Credits Required: 70

Reinforcing Ironworker (REIW)

Class	Title	Minimum Credits
IWA 120	Introduction to Ironwork	3
IWA 122	Ironworker - General Rigging	2
IWA 141	Introduction to Reinforcing Ironwork	3
IWA 201	Introduction to Welding	3
IWA 224	Labor and Trade History	1
IWA 241	Advanced Reinforcing Ironwork	7
Total		19

Total Credits Required: 63

Rigger/Machinery Mover (RGMM)

Class	Title	Minimum Credits
IWA 120	Introduction to Ironwork	3
IWA 122	Ironworker - General Rigging	2
IWA 151	Rigging/Machinery Mover I	3
IWA 155	Rigging/Machinery Mover II	3
IWA 191	Reinforced Iron and Structures for Rigging	4
IWA 201	Introduction to Welding	3
IWA 224	Labor and Trade History	1
Total		19

Total Credits Required: 63

Sprinkler Fitter Specialty (SPRF)

Class	Title	Minimum Credits
UAR 160	Introduction to Sprinkler Fitter Practices	3
UAR 162	Basic Drawing and Introduction to Automatic Sprinklers	3
UAR 164	Reading Automatic Sprinkler Piping Drawings	2
UAR 166	Installation of Sprinkler Systems	2
UAR 168	Architectural Working Drawings and Blueprint Reading for Sprinkler Fitters	2
UAR 170	Sprinkler Water Supply and The Automatic Sprinkler	2
UAR 172	Types of Fire Protection Systems and Alarms	3
UAR 174	Special Application Sprinkler Systems and Hydraulics	3
UAR 176	Human Relations	3
UAR 178	Technical Writing	3
Total		26

Total Credits Required: 70

Trade Related Elective Credits (TRI)

Class	Title	Minimum Credits
Total	Trade Related Elective Credits (19-26)	19-26
Total		19

Total Credits Required: 63