

## 2023-24 ACADEMIC PROGRAMS

### 2023-2024 INDUSTRIAL TRAINING (ASINDT)

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 02/16/2024 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		
<b>Total</b>		<b>26</b>

**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		
<b>Total</b>		<b>26</b>

**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		
<b>Total</b>		<b>19</b>

**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		
<b>Total</b>		<b>26</b>

**Total Credits Required: 70**

**Plumber Specialty (PLUM)**

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

**Total Credits Required: 63**