## 2023-24 ACADEMIC PROGRAMS

## 2023-2024 INDUSTRIAL TRAINING (APITRN)

## 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 applied 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 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 12-15 additional credits | 12 |  |  |  |

## General Education Requirements

| Class | Title | Minimum Credits |
| :--- | :--- | :---: |
| Writing | Elective(s) | 4 |
| UAT 210 | Public Speaking* | 1.5 |
| UAT 213 | Planning, Teaching and Assessing Effective Lessons | 1.5 |
|  | - Advanced* |  |
| Math | Elective(s)** | 3 |
| Nat. Sci. | Elective(s)** | 3 |
| Soc. Sci. | Elective(s) | 3 |
| Arts/Human. | Elective(s) | 3 |
| Total |  | 19 |

## Total Credits Required: 41

Accurate as of 02/15/2024 Information is subject to change without notice.

## Concentrations

## Architectural and Ornamental Ironworker (AOIW)

| Class | Title |
| :--- | :--- |
| 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: 60
HVAC Specialty (HVTC)

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
Total Credits Required: 67
Journeyman Ironworker (JMIW)

| Class | Title |
| :--- | :--- |
| 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 | 26 |
| Total |  |

## Total Credits Required: 67

## 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: 60 |  |
| 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: 67

## Plumber Specialty (PLUM)

Class Title
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

Total Credits Required: 67

## Reinforcing Ironworker (REIW)

Class Title
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

Total Credits Required: 60

## Rigger/Machinery Mover (RGMM)

| Class | Title |
| :--- | :---: |
| IWA 120 Introduction to Ironwork 3 | Minimum Credits |
| 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: 60

## 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: 67 |  |
| Trade Related Elective Credits (TRI) |  |
| Class Title | Minimum Credits |
| TRI Trade Related Elective Credits 19-26 |  |
| Total | 19 |

Total Credits Required: 60

