

# Welding Construction Associate in Applied Science to NIU Bachelor of Science in Applied Manufacturing (BS-AMT)

Students should use this guide, the NIU Plus Guide and see an IVCC Counselor to choose coursework.

## FALL SEMESTER (YR1)

WLD 1200 SMAW Mild Steel, Flat Position	2
WLD 1201 SMAW Mild Steel, Horizontal Position	2
WLD 1202 SMAW Mild Steel, Vertical Position	2
WLD 2208 OAW Oxy, Plasma Cutting, Air Carbon Arc	2
WED 2200 Welding Blueprint Reading	3
MTH 1008 General Elementary Statistics	3=14

## SPRING SEMESTER (YR1)

WLD 1204 SMAW Mild Steel, Overhead Position	2
WLD 1231 SMAW Mild Steel, Open Root, All Pos.	2
WLD 2203 SMAW Pipe, 2G	2
WLD 2206 OAW Gas Welding & Brazing, Flat & Horiz	2
MET 1209 Welding Metallurgy	3
NIU General Education Course (see NIU Plus Guide)	3
NIU Society & Culture Course (see NIU Plus Guide)	3=17

## FALL SEMESTER (YR2)

WLD 1220 GTAW Mild Steel, All Positions	2
WLD 1230 FCAW Mild Steel, All Positions	2
WLD 2209 Introduction To Fabrication	2
WLD 2213 SMAW Pipe, 5G	2
WLD 2223 SMAW Pipe, 6G	2
IMT 1220 Rigging Systems	3
ENG 1205 Writ Comm Skills for Bus Ind & Tech	3=16

## SPRING SEMESTER (YR2)

WLD 1209 GMAW Flat and Horizontal Position	2
WLD 2233 SMAW Pipe, 6G, GTAW Root, SMAW Finish	2
WLD 2250 Welding Internship	3
MET 1200 Inspection, Measurement & Quality	3
NIU General Education Course (see NIU Plus Guide)	3=13
TOTAL= 60	

To be eligible for admission to the B.S. in Engineering Technology degree-completion program, with an emphasis in Applied Manufacturing Technology, you must have completed – or be working to complete – an Associate of Applied Science (AAS) degree in a technology-oriented related field. The courses below must be completed in order to be eligible for the program. Some of these courses may be completed as a part of your AAS degree. Use the [NIU Plus Guide @IVCC](#) for course selection. See a IVCC Counselor for details.

General Education Requirements + Technology Foundations*		Illinois Valley CC Equivalents	
General Education (35 Hrs)	Foundational Studies (12 Hrs)	1 <sup>st</sup> + 2 <sup>nd</sup> Year Rhetoric/Composition (6 Hrs)	ENG 1001 + 1002
		Oral Communications (3 Hrs)	SPH 1001
		Quantitative Literacy (3 Hrs)	Trigonometry or Pre-calculus is required: MTH 1003 & 1004 (both courses); or MTH 1005 = MATH 155 at NIU
	Knowledge Domain Studies (23 Hrs)	Creativity & Critical Analysis (6 Hrs)	See NIU Articulation Tables
		Nature & Technology (8 Hrs)	• CHM 1004 • PHY 2003
		Society & Culture (6 Hrs)	See NIU Articulation Tables
Additional Technology Foundations (3 Hrs)	Gen Ed from any of the Knowledge Domain areas above (3 hrs)	See NIU Articulation Tables	
	Human Diversity Requirement (3 hrs) refer to NIU catalog	Can be satisfied with a Gen Ed course	
Additional Technology Foundations (3 Hrs)	Basic Statistics (3 Hrs)	MTH 1008	
	Technical Writing (3 Hrs)	ENG 1205 or ENG 2000	
	Technology (3 Hrs)	CAD 1200 or 1201	

Upon completion of this curriculum outline and acceptance to the Applied Manufacturing Technology major at NIU, students can complete the program in 30 additional NIU credit hours (listed below) online (part time only over 2 years) or on-campus, whichever they prefer.

### a. Required NIU Technology Courses (24 semester hours)

- TECH 391: Industrial Quality Control
- TECH 404: Supervision in Industry
- TECH 406: Facilities Management Technology
- TECH 429: Plant Location, Layout & Materials Management
- TECH 432: Disaster Preparedness
- TECH 434: Human Factors in Industrial Accident Prevention
- TECH 492: Manufacturing Distribution Applications
- TECH 496: Industrial Project Management

### b. NIU Technology Electives (6 semester hours)

- TECH 305: Green Technologies
- TECH 402: Industrial Training & Evaluation
- TECH 435: Legal Aspects of Safety
- TECH 442: Work Simplification & Measurement
- TECH 444: Manufacturing Control Systems
- TECH 484: Energy Management

## NIU contact for questions:

College of Engineering and  
Engineering Technology  
815-753-1442  
ceetadvising@niu.edu

