

# Electronics and Electricians 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)

ALH 1221 Industrial First Aid	1
GNT 1208 Industrial Safety	1
ELT 1204 Fundamentals of Electronics: Dc/Ac Theory and Circuit Analysis	5
ELT 2205 Prototype Design and Fabrication	2
ELT 2207 Instruments & Measurements	1
IMT 1200 Equipment Maintenance	3
MTH 1008 General Elementary Statistics	3=16

## SPRING SEMESTER (YR1)

CAD 1200 Computer Aided Draft I AutoCAD	3
CSN 1225 Core Networking Technologies	3
ELE 1206 Electrical Wiring	2
ELT 2204 Digital/Micro: Principles & Applications	5
IMT 1220 Rigging Systems	3=16

## FALL SEMESTER (YR2)

ELE 1202 Motors and Controls I	2.50
ELE 1204 Programmable Logic Controllers I	3
ELT 1200 Beginning Industrial Electronics	2.50
ENG 1205 Writ Comm Skills for Bus Ind & Tech	3
NIU General Education Course (see NIU Plus Guide)	3=14

## SPRING SEMESTER (YR2)

ELE 1203 Motors and Controls II	2.50
ELE 1205 Programmable Logic Controllers II	3
ELT 1203 Industrial Instrumentation	2.50
ELT 2254 Electrical Capstone or ELT 2209 Electronics Tech Internship	3
NIU Society & Culture Course (see NIU Plus Guide)	3
NIU General Education Course (see NIU Plus Guide)	3=17
TOTAL= 63	

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
	Knowledge Domain Studies (23 Hrs)	Quantitative Literacy (3 Hrs)	Trigonometry or Pre-calculus is required: MTH 1003 & 1004 (both courses); or MTH 1005 = MATH 155 at NIU
		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
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	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. 120 credits total are required for the BS-AMT degree.

### NIU contact for questions:

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

#### 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