

# Computer Aided Engineering and Design 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)

CAD 1200 Computer Aided Draft I AutoCAD	3
DFT 1200 Basic Drafting	3
ELT 1000 Introduction to Electronics	3
MET 1202 Manufacturing Materials & Processes I	4
MTH 1008 General Elementary Statistics	3=16

## SPRING SEMESTER (YR1)

CAD 1201 Comp Aided Draft II, Using AutoCAD	3
CAD 1203 Electronics Drafting	2
CAD 1206 Descriptive Geometry and Dev Drawings	3
CSP 1203 Microsoft Office Professional I or CSI 1002 Intro To Business Computer Systems	3
NIU Society & Culture Course (see NIU Plus Guide)	3=14

## SUMMER SEMESTER

CAD 2206 Design Technician Internship	3=3
---------------------------------------	-----

## FALL SEMESTER (YR2)

CAD 1202 Civil Applications of CAD	3
CAD 2200 Computer Aided Design I	3
CAD 2202 Architectural CAD	3
CAD 2203 Engineering Design Concepts	3
ENG 1205 Writ Comm Skills for Bus Ind & Tech	3=15

## SPRING SEMESTER (YR2)

CAD 2201 Computer Aided Design II	3
CAD 2204 Geometric Dimensioning & Tolerancing	3
CAD 2208 Design Projects	4
NIU General Education Course (see NIU Plus Guide)	3=13

TOTAL= 61

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
Human Diversity Requirement (3 hrs) refer to NIU catalog	Gen Ed from any of the Knowledge Domain areas above (3 hrs)	See NIU Articulation Tables	
Additional Technology Foundations	Basic Statistics (3 Hrs)	Can be satisfied with a Gen Ed course	
	Technical Writing (3 Hrs)	MTH 1008	
	Technology (3 Hrs)	ENG 1205 or ENG 2000 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