University of Northern Iowa

Department of Applied Engineering & Technical Management Transfer Guide

Marshalltown Community College

Associate of Applied Science (A.A.S.) – Electro-Mechanical Systems Technologist

Transfer guide to the University of Northern Iowa

Bachelor of Science (B.S.) – Automation Engineering Technology

1. When will I graduate?

Students transferring to UNI from this A.A.S. program at MCC should **expect to take 77 credits at UNI**. Assuming that the student is starting at UNI during the fall semester, it will take roughly five semesters (two and a half years, a fall/spring/fall/spring/fall sequence), with no summer coursework, to graduate.

Transfer Credit Summary	Credits
A.A.S. credits transferring directly into UNI program	40
Other credits transferring to UNI	3
Total credits transferring towards UNI degree	43
Total credits needed at UNI	**77** **(120 total)**

2. What A.A.S. courses transfer?

Upon completion of this A.A.S. degree, the following courses within the listed program at UNI will be completed:

- STAT 1772 – Introduction to Statistical Methods (3 cred.)
  - Students must complete MAT 156 – Statistics at Iowa Valley.
- TECH 1037 – Introduction to Circuits (3 cred.)
- TECH 1039 – Circuits & Systems (3 cred.)
- TECH 3164 – Programmable Logic Controllers (3 cred.)
- ENGLISH 3772 – Technical Writing for Engineering Technologists (3 cred.)
- AET Electives (15 cred.)
- Additional university electives transferring (10 cred.)

3. What other courses transfer?

Other courses built into this A.A.S. curriculum, or open electives, will also transfer to UNI. The following courses are recommended to take at MCC as part of this A.A.S. curriculum:

- Social/Behavioral Science course (3 cred.)
  - Students should complete PSY 111 – Introduction to Psychology ***or*** SOC 110 – Introduction to Sociology at MCC.

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3. What would I study at UNI?

By completing the recommended A.A.S. degree plan, the student would be required to complete the courses in black, listed below, at UNI.

Math/Science Coursework		Cr.
CS 1160	C/C++ Programming	3
MATH 1150 **or** MATH 1420	Calculus for Technology **or** Calculus I	4
PHYSICS 1511	General Physics I	4
~~STAT 1772~~	~~Intro to Statistical Methods~~	~~3~~
	Total Credits Remaining	**11**

AET Technical Core		Cr.
ENGR 1000	Intro. to Eng. & Prof. Practices	3
TECH 1010	Fund. of Metal Removal	3
TECH 1024	Engineering Design with CAD	3
~~TECH 1037~~	~~Introduction to Circuits~~	~~3~~
~~TECH 1039~~	~~Circuits & Systems~~	~~3~~
PHIL 1560	Science, Technology & Ethics	3
TECH 2053	Digital Electronics	4
TECH 2055	Elec. Power Systems & Mach.	4
TECH 2065	Industrial Robotics	3
ENGR 2080	Statics	2
ENGR 2180	Strengths of Materials	2
TECH 3147	Computer-Aided Manufacturing	3
TECH 3148	Machine Design	3
TECH 3160	Comp.-Aided Instru. & Inter.	3
~~TECH 3164~~	~~Prog. Logic Controllers~~	~~3~~
TECH 4162	Hydraulics & Pneumatics	3
ENGR 4500	Senior Design	3
~~ENGLISH 3772~~	~~Tech. Writing for Eng. Tech.~~	~~3~~
	~~AET Electives~~	~~15~~
	Total Credits Remaining	**42**

UNI Foundational Inquiry (UNIFI)	Cr.
WR - Written Communication	3
OC - Oral Communication	3
~~QR - Quantitative Reasoning~~	~~3~~
~~HD - Human Condition (Domestic)~~	~~3~~
HG - Human Condition (Global)	3
~~SR - Scientific Reasoning (with Lab)~~	~~4~~
HE - Human Expression	3
~~RE - Responsibility~~	~~3~~
UNIFI certificate **or** UNIFI electives	12
Total UNIFI Credits Remaining	**24**

Credits needed to earn UNI degree	**77**

4. How would I complete my degree?

Based on the remaining coursework, below is a semester-by-semester breakdown of how the student would complete any remaining requirements at UNI.

Fall 1	Cr.
CS 1160	3
PHYSICS 1511	4
ENGR 1000	3
TECH 1024	3
UNIFI course	3
Total	**16**

Spring 1	Cr.
MATH 1150	4
PHIL 1560	3
TECH 1010	3
UNIFI course	3
UNIFI course	3
Total	**16**

Fall 2	Cr.
TECH 2053	4
TECH 2065	3
ENGR 2080	2
UNIFI course	3
UNIFI course	3
Total	**15**

Spring 2	Cr.
TECH 2055	4
ENGR 2180	2
TECH 3147	3
TECH 3160	3
UNIFI course	3
Total	**15**

Fall 3	Cr.
TECH 3148	3
TECH 4162	3
ENGR 4500	3
UNIFI course	3
UNIFI course	3
Total	**15**

Other Important Information

- This transfer guide is based off of the 2024-2025 academic catalogs at UNI & Marshalltown Community College and includes future adjustments to the UNI curriculum.
- Courses listed in the Remaining UNI Plan of Study section are subject to change at any time and are based on a fall semester start.
- This transfer guide assumes the student is only transferring in coursework from this A.A.S. degree plan. Students ***may transfer additional credits to UNI***, which will be evaluated on an individual basis.
- The UNI Foundational Inquiry (UNIFI) at UNI is the collection of general education courses required by the institution to fulfill the universities mission. For more information, visit unifi.uni.edu.