

Marshalltown Community College

Associate of Applied Science (A.A.S.) – Machine Tool Technology Tool & Die

Transfer guide to the [University of Northern Iowa](#)

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

1. When will I graduate?

Students transferring to UNI from this A.A.S. program at MCC should **expect to complete 85 credits at UNI**. Assuming that the student is starting at UNI during the fall semester, it will take roughly six semesters (three years, a fall/spring/fall/spring/fall/spring sequence), with no summer coursework, to graduate.

Transfer Credit Summary	Credits
A.A.S. credits transferring directly into UNI program	12
Other credits transferring to UNI	23
Total credits transferring towards UNI degree	35
Total credits needed at UNI	85 (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:

- TECH 1010 – Fundamentals of Metal Removal (3 cred.)
- TECH 1024 – Engineering Design with CAD (3 cred.)
- TECH 3113 – Manufacturing Tooling (3 cred.)
- ENGLISH 3772 – Technical Writing for Engineering Technologists (3 cred.)
 - Students must complete **ENG 111** – Technical Writing at Iowa Valley.

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 required to complete 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.
- Additional university electives transferring (20 cred.)



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4. 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.
CHEM 1020 or CHEM 1110	Chemical Technology or General Chemistry I	4
CS 1510 or CS 1160	Introduction to Computing or C/C++ Programming	3
MATH 1420	Calculus I	4
PHYSICS 1511	General Physics I	4
Total Credits Remaining		15

Technical Core		Cr.
ENGR 1000	Intro. to Eng. & Prof. Practices	3
TECH 1008	Basic Manufacturing Processes	3
TECH 1010	Fund. of Metal Removal	3
TECH 1024	Engineering Design with CAD	3
PHIL 1560	Science, Technology & Ethics	3
TECH 2024	Technical Drawing with GD&T	3
TECH 2036	Power Technology	3
TECH 2065	Industrial Robotics	3
TECH 2072	Engineering Materials	3
ENGR 2080	Statics	2
ENGR 2180	Strengths of Materials	2
TECH 3113	Manufacturing Tooling	3
TECH 3136	Principles of Metal Casting	3
TECH 3142	Statistical Quality Control	3
TECH 3143	Manag. Ops. & Manuf. Systems	3
TECH 3147	Comp.-Aided Manufacturing	3
TECH 3177	Adv. Manufacturing Processes	3
TECH 4137	Tooling Prac. in Metal Casting	3
TECH 4162	Hydraulics & Pneumatics	3
ENGR 4500	Senior Design	3
ENGLISH 3772	Tech. Writing for Eng. Tech.	3
Total Credits Remaining		49

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		9
Total UNIFI Credits Remaining		21

Credits needed to earn UNI degree 85

5. 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 1008	3
UNIFI course	3
Total	16

Spring 1	Cr.
MATH 1420	4
PHIL 1560	3
TECH 2024	3
TECH 2036	3
UNIFI course	3
Total	16

Fall 2	Cr.
CHEM 1020	4
TECH 2065	3
ENGR 2080	2
ENGLISH 3772	3
Total	12

Spring 2	Cr.
TECH 2072	3
ENGR 2180	2
UNIFI course	3
UNIFI course	3
Total	14

Fall 3	Cr.
TECH 3136	3
TECH 3142	3
TECH 3177	3
TECH 4162	3
UNIFI course	3
Total	15

Spring 3	Cr.
TECH 3143	3
TECH 3147	3
TECH 4137	3
ENGR 4500	3
Total	12

Other Important Information

- This transfer guide is based off the 2025-2026 academic catalogs at UNI & Ellsworth Community College.
- Courses listed in the Remaining UNI Plan of Study (section 5) are subject to change at any time. This plan assumes transfer students start in the fall semester.
- 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 university's mission. For more information, visit [unifi.uni.edu](#).