

North Iowa Area Community College

Associate of Applied Science (A.A.S.) – Industrial Automation & Robotics Technology

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 NIACC should **expect to take 60 credits at UNI**. Assuming that the student is starting at UNI during the fall semester, it will take roughly four semesters (two years, a fall/spring/fall/spring sequence), with no summer coursework, to graduate.

| Transfer Credit Summary | Credits |
|--|--------------------------|
| A.A.S. credits transferring directly into UNI program | 32 |
| Other credits transferring to UNI (Gen eds or electives) | 28 |
| Total credits transferring towards UNI degree | 60 |
| Total credits needed at UNI | 60 (120 total) |

2. Which A.A.S. courses transfer directly into the AET major?

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

- TECH 1037 – Introduction to Circuits (3 cred.)
- TECH 2053 – Digital Electronics (4 cred.)
- TECH 2055 – Electrical Power Systems & Machinery (4 cred.)
- TECH 2065 – Industrial Robotics (3 cred.)
- TECH 3160 – Computer-Aided Instrumentation & Interfacing (3 cred.)
- TECH 3164 – Programmable Logic Controllers (3 cred.)
- TECH 4162 – Hydraulics & Pneumatics (3 cred.)
- AET Electives (9 cred.)

3. Which A.A.S. courses transfer directly to UNI as “gen eds” or electives?

Other general education courses built into this A.A.S. curriculum, or open electives, will also transfer to UNI.

- Communications elective (3 cred.)
 - Students should complete **SPC 112** – Public Speaking **or** **SPC 122** – Interpersonal Communication at NIACC.
- General education elective (6 cred.)
 - Students should complete **ART 101** – Art Appreciation **or** **MUS 100** – Music Appreciation at NIACC.
 - Students should complete **MAT 156** – Introduction to Statistics at NIACC.
- Humanities/Social Science elective (3 cred.)
 - Students should complete **PSY 111** – Introduction to Psychology **or** **SOC 110** – Introduction to Sociology at NIACC.
- Additional university electives transferring (16 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. |
|--------------------------------|--|--------------|
| 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 | 9 |
| Total Credits Remaining | | 31 |

| 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 | | 18 |

Credits needed to earn UNI degree 60

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. |
|--------------|-----------|
| MATH 1420 | 4 |
| PHYSICS 1511 | 4 |
| ENGR 1000 | 3 |
| TECH 1024 | 3 |
| UNIFI course | 3 |
| | |
| Total | 17 |

| Spring 1 | Cr. |
|--------------|-----------|
| CS 1160 | 3 |
| PHIL 1560 | 3 |
| TECH 1010 | 3 |
| TECH 1039 | 3 |
| ENGR 2080 | 2 |
| | |
| Total | 14 |

| Fall 2 | Cr. |
|--------------|-----------|
| ENGR 2180 | 2 |
| TECH 3148 | 3 |
| ENGLISH 3772 | 3 |
| UNIFI course | 3 |
| UNIFI course | 3 |
| | |
| Total | 14 |

| Spring 2 | Cr. |
|--------------|-----------|
| TECH 3147 | 3 |
| ENGR 4500 | 3 |
| UNIFI course | 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 & North Iowa Area 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.