Black Hawk College

Associate of Applied Science (A.A.S.) – Engineering Technology-Electrical Track

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 Black Hawk should **expect to take 65 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 two summer courses, to graduate.

Transfer Credit Summary	Credits
A.A.S. credits transferring directly into UNI program	55
Other credits transferring to UNI	0
Total credits transferring towards UNI degree	55
Total credits needed at UNI	**65** (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:

- CS 1160 – C/C+ Programming (3 cred.)
- MATH 1150 – Calculus for Technology (4 cred.)
    - Students must complete MATH 223 – Technical Calculus at Black Hawk.
- PHYSICS 1511 – General Physics I (4 cred.)
    - Students must complete PHYS 101 – College Physics I at Black Hawk.
- TECH 1024 – Engineering Design with CAD (3 cred.)
- TECH 1037 – Introduction to Circuits (3 cred.)
- TECH 1039 – Circuits & Systems (3 cred.)
- TECH 2053 – Digital Electronics & Lab (4 cred.)
- TECH 3164 – Programmable Logic Controllers (3 cred.)
- TECH 4162 – Automation: Pneumatics & Hydraulics (3 cred.)
- AET electives (15 cred.)
- Additional university electives transferring (10 cred.)

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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	**3**

AET Technical Core		Cr.
ENGR 1000	Intro. to Eng. & Prof. Practices	3
PHIL 1560	Science, Technology & Ethics	3
TECH 1010	Fund. of Materials Removal	3
TECH 1024	Engineering Design with CAD	3
TECH 1037	Intro to Circuits	3
TECH 1039	Circuits & Systems	3
TECH 2053	Digital Electronics & Lab	4
TECH 2055	Electrical Power & Mach. & Lab	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	Automation: Pneu & Hydrau.	3
ENGR 4500	Senior Design	3
ENGLISH 3772	Tech. Writing for Eng. Tech.	3
	AET Electives	15
	Total Credits Remaining	**35**

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	**27**

Credits needed to earn UNI degree	65

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.
STAT 1772	3
ENGR 1000	3
TECH 2065	3
ENGR 2080	2
UNIFI course	3
Total	**14**

Spring 1	Cr.
PHIL 1560	3
TECH 1010	3
TECH 2055	4
ENGR 2180	2
UNIFI course	3
Total	**15**

Summer 1	Cr.
UNIFI course	3
UNIFI course	3
Total	**6**

Fall 2	Cr.
TECH 3148	3
ENGLISH 3772	3
UNIFI course	3
UNIFI course	3
UNIFI course	3
Total	**15**

Spring 2	Cr.
TECH 3147	3
TECH 3160	3
ENGR 4500	3
UNIFI course	3
UNIFI course	3
Total	**15**

Other Important Information

- This transfer guide is based off of the 2023-2024 academic catalogs at UNI & Black Hawk 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.