Manufacturing Engineering Technology

- Bachelor of Science (B.S.)
- Program Curriculum

University of Northern Iowa

Mathematics/Science coursework — 12 cr.

CHEM 1020 - Chemical Technology **or** CHEM 1110 - General Chemistry	4 cr.
• *course also satisfies UNIFI Scientific Reasoning requirement.*	
MATH 1150 - Calculus for Technology **or** MATH 1420 - Calculus I	4 cr.
PHYSICS 1511 - General Physics I	4 cr.
• *course also satisfies UNIFI Scientific Reasoning requirement.*	

Technical Core — 60 cr.

TECH 1008 - Basic Manufacturing Processes	3 cr.
TECH 1010 - Metal Removal Processes	3 cr.
TECH 1024 - Technical Drawing & Design I	3 cr.
TECH 2024 - Technical Drawing & Design II	3 cr.
TECH 2060 - Fundamentals of Automated Manufacturing	3 cr.
TECH 2072 - Engineering Materials	3 cr.
TECH 2080 - Statics & Strengths of Materials	3 cr.
TECH 3113 - Manufacturing Tooling	3 cr.
TECH 3127 - Transport Phenomena for Technologists	3 cr.
TECH 3142 - Statistical Quality Control	3 cr.
TECH 3143 - Managing Operations & Manuf. Systems **or** TECH 3180 - Lean & Sustainable Operations	3 cr.
TECH 3196 - Industrial Safety	3 cr.
TECH 4110 - Manufacturing Process Planning	3 cr.
TECH 4162 - Automation - Pnuematics & Hydraulics	3 cr.
TECH 4187 - Applied Industrial Supervision & Management	3 cr.
TECH 4210 - Manufacturing Senior Projects	3 cr.
ENGLISH 3772 - Technical Writing for Eng. Technologists	3 cr.
Emphasis Area (select one group of courses below)	9 cr.

Advanced Manufacturing emphasis

TECH 3024 - Solid Modeling & Additive Manuf. for Design	3 cr.
TECH 3147 - Computer-Aided Manufacturing	3 cr.
TECH 3177 - Advanced Manufacturing Processes	3 cr.

Design emphasis

TECH 3024 - Solid Modeling & Additive Manuf. for Design	3 cr.
TECH 3135 - Product Design	3 cr.
TECH 3148 - Machine Design	3 cr.

Metal Casting emphasis

TECH 3134 - Molding Practices in Metal Casting	3 cr.
TECH 4136 - Melting Metallurgy & Practices	3 cr.
TECH 4137 - Tooling Practices in Metal Casting	3 cr.

UNI Foundational Inquiry — 37 cr.

Written Communications	3 cr.
Oral Communications	3 cr.
Quantitative Reasoning	3 cr.
Human Condition (Domestic)	3 cr.
Human Condition (Global)	3 cr.
Scientific Reasoning	4 cr.
• *requirement completed with PHYSICS 1511.*	
Human Expression	3 cr.
Responsibility	3 cr.
UNIFI Elective	3 cr.
• *requirement completed with CHEM 1020.*	
UNIFI Elective	3 cr.
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Inspired by the University of Northern Iowa mission to engage students in high-quality and high-impact learning experiences within a challenging and supportive environment, UNI's new general education requirements are designed to ensure that students' foundational learning experiences lead to a lifetime full of potential. For more information, visit **unifi.uni.edu**.

Credit Totals

Math/Science coursework	12 cr.
Technical Core coursework	60 cr.
UNI Foundational Inquiry (UNIFI)	37 cr.
Credits counted twice (major & UNIFI)	-7 cr.
Total	**105 cr.**
University Electives needed	24 cr.
Grand Total	**126 cr.**

Department of Applied Engineering & Technical Management
University of Northern Iowa
25 Industrial Technology Center
Cedar Falls, IA 50614-0178
Phone: (319) 273-2561 || E-mail: appliedengineering@uni.edu

Important ALEKS Test Information

The ALEKS test is a math placement test that all UNI students must complete prior to enrolling in certain math & science courses. Below are the scores required for the math & science requirements in this program:

• PHYSICS 1511: 45 • STAT 1772: 50 • MATH 1150: 61

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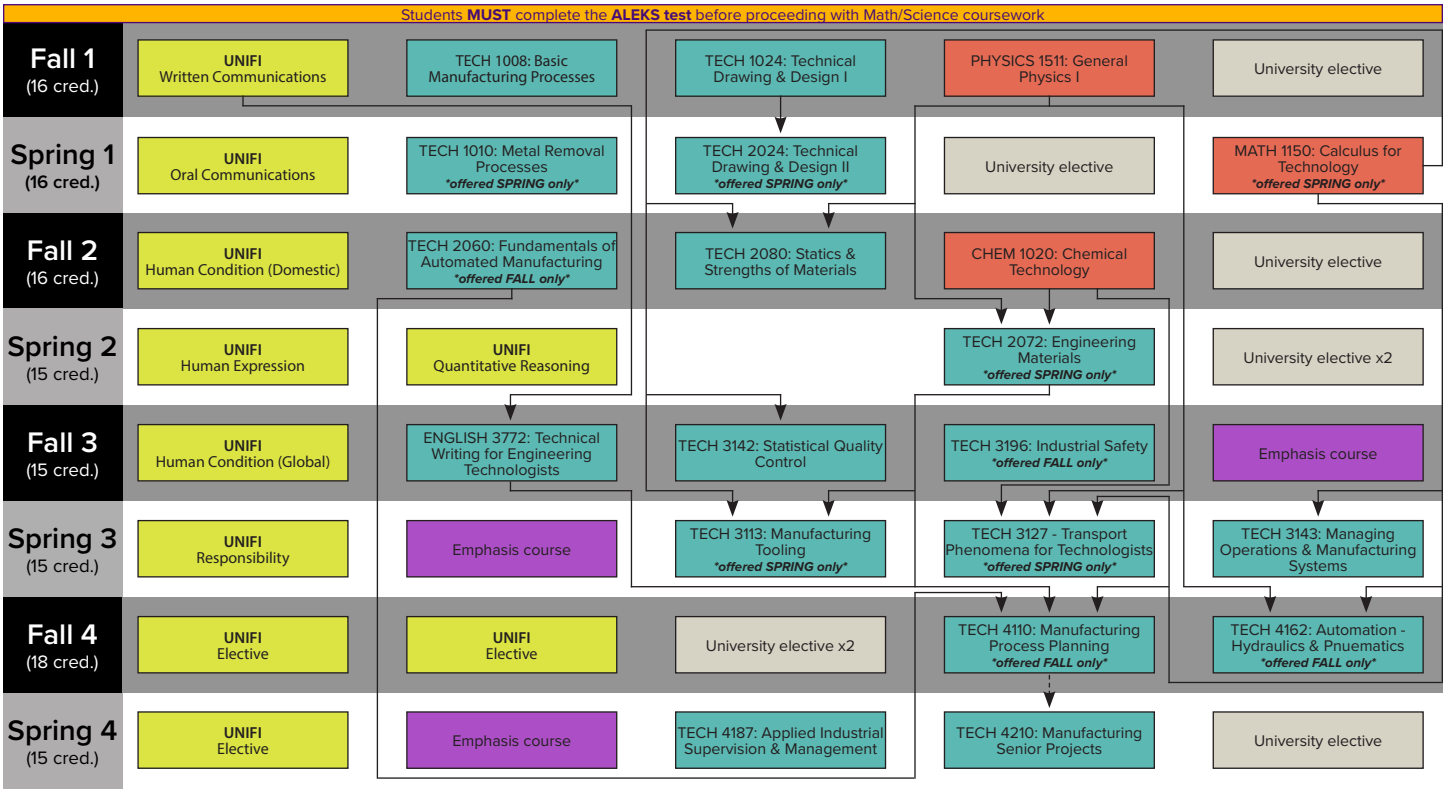
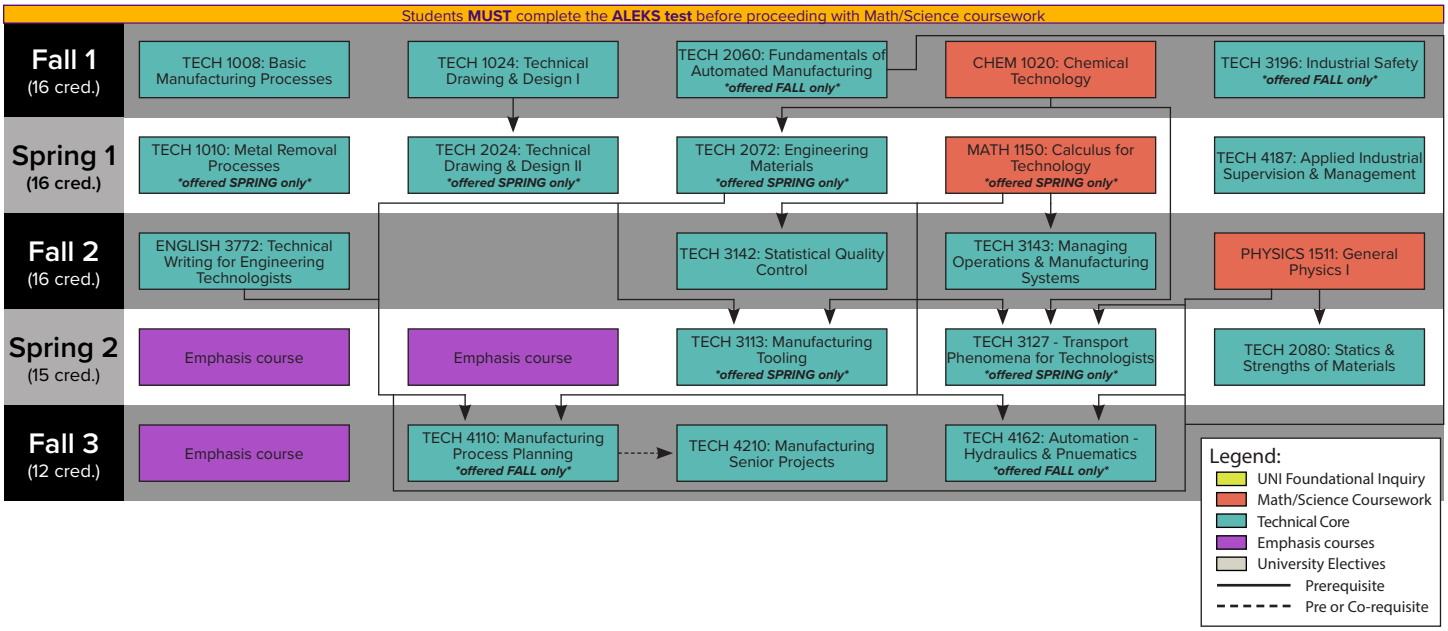
Example course sequence for ***first-year, freshman*** students



Example course sequence for ***transfer student with an A.A. or A.S. degree***



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