

# Technology & Engineering Education

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



## Mathematics/Science coursework 12 cr.

CHEM 1020 - Chemical Technology	4 cr.
• course also satisfies UNIFI Scientific Reasoning requirement.	
MATH 1140 - Precalculus	4 cr.
PHYSICS 1000 - Physics in Everyday Life & Lab <b>or</b>	4 cr.
PHYSICS 1511 - General Physics I	
• course also satisfies UNIFI Scientific Reasoning requirement.	

## Technology & Engineering Core 24 cr.

TECH 1008 - Basic Manufacturing Processes	3 cr.
TECH 1010 - Metal Removal Processes	3 cr.
TECH 1024 - Technical Drawing & Design I	3 cr.
TECH 1037 - Intro to Circuits <b>or</b>	3 cr.
TECH 3164 - Programmable Logic Controllers	3 cr.
TECH 1055 - Graphic Communications Foundations	3 cr.
TECH CM 1000 - Intro to Construction Processes	3 cr.
TECH TEE 2020 - Transportation Technology	3 cr.
TECH TEE 3050 - Robotics & Sensors	3 cr.

## Technology & Engineering Education Core 12 cr.

TECH TEE 1000 - Intro. to Technology & Eng. Education	3 cr.
TECH TEE 3100 - Tech. & Eng. Edu. Curriculum Planning	3 cr.
TECH TEE 3150 - Tech. & Eng. Education Lab Management	3 cr.
TECH TEE 4100 - Tech. & Eng. Edu. Level 3 Teaching Exp.	1 cr.
TECH TEE 4200 - Tech. & Eng. Education Methods	2 cr.

## Teacher Licensure coursework 30 cr.

TEACHING 2017 - Level 1 Field Exp.: Exploring Teaching	1 cr.
EDPSYCH 2030 - Dynamics of Human Development	3 cr.
• course also satisfies UNIFI Human Condition (Domestic) requirement.	
SPED 3150 - Meeting the Needs of Diverse Learners in Classrooms	2 cr.
TEACHING 3128 - Lvl. 2 Field Exp.: Lesson Planning & Instruction	1 cr.
EDPSYCH 3148 - Learning & Motivation in Classroom Contexts	3 cr.
MEASURES 3150 - Classroom Assessment	2 cr.
SOCFOUND 3119 - Schools & American Society	3 cr.
TEACHING 4170 - Human Relations - Awareness & Application	3 cr.
TEACHING 3138 - Secondary School Teaching	12 cr.

## UNI Foundational Inquiry 37 cr.

Written Communications	3 cr.
Oral Communications	3 cr.
Quantitative Reasoning	3 cr.
Human Condition (Domestic)	3 cr.
• requirement completed with EDPSYCH 2030.	
Human Condition (Global)	3 cr.
Scientific Reasoning	4 cr.
• requirement completed with PHYSICS 1000 or 1511.	
Human Expression	3 cr.
Responsibility	3 cr.
UNIFI Elective	3 cr.
• requirement completed with CHEM 1020.	
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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](http://unifi.uni.edu).

## Credit Totals

Math/Science coursework	12 cr.
Technology & Engineering Core	24 cr.
Technology & Engineering Edu. Core	12 cr.
Teacher Licensure coursework	30 cr.
UNI Foundational Inquiry (UNIFI)	37 cr.
Credits counted twice (major & UNIFI)	-11 cr.
<b>Total</b>	<b>104 cr.</b>
University Electives needed	22 cr.
<b>Grand Total</b>	<b>126 cr.</b>

## 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](mailto: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:

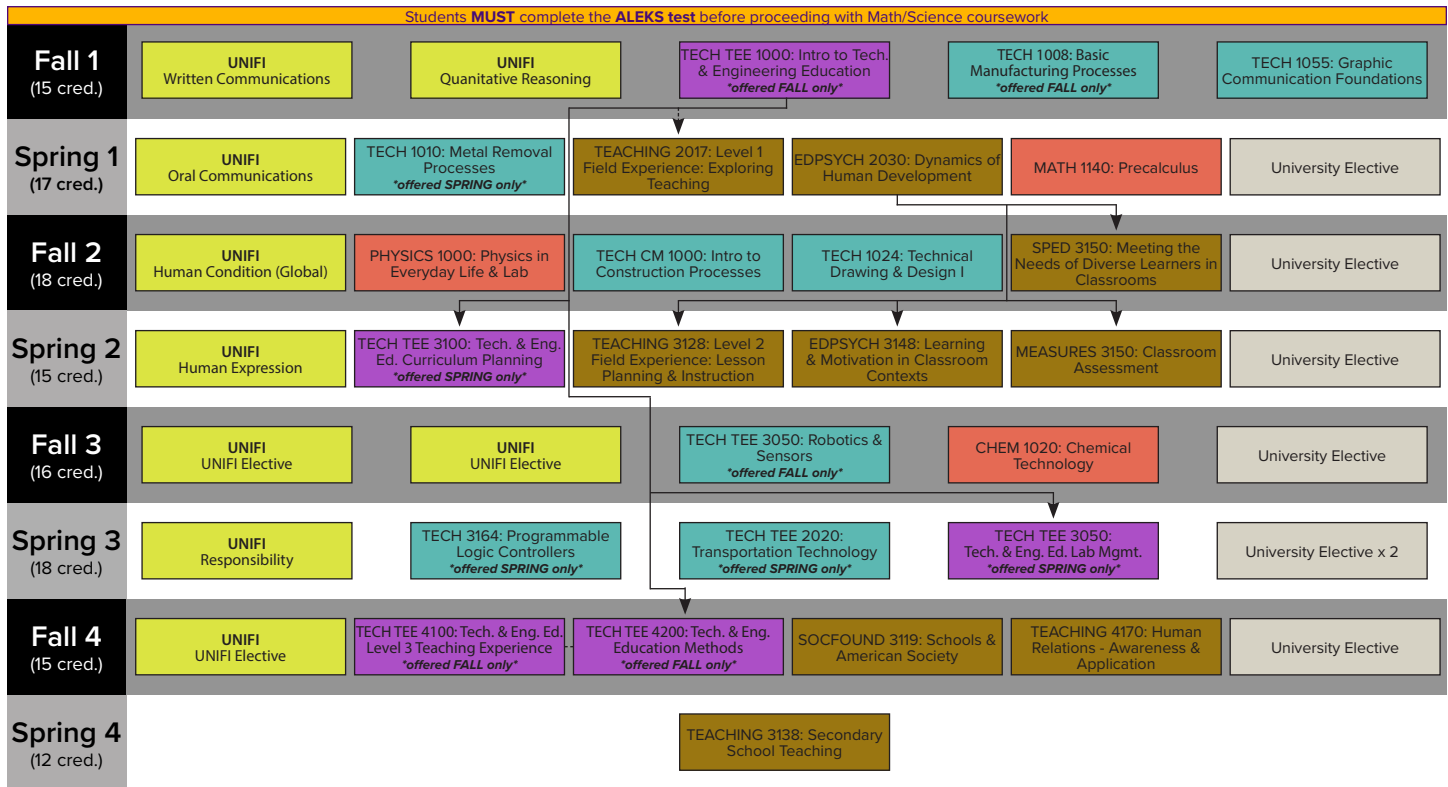
- PHYSICS 1511: 45
- MATH 1140: 61

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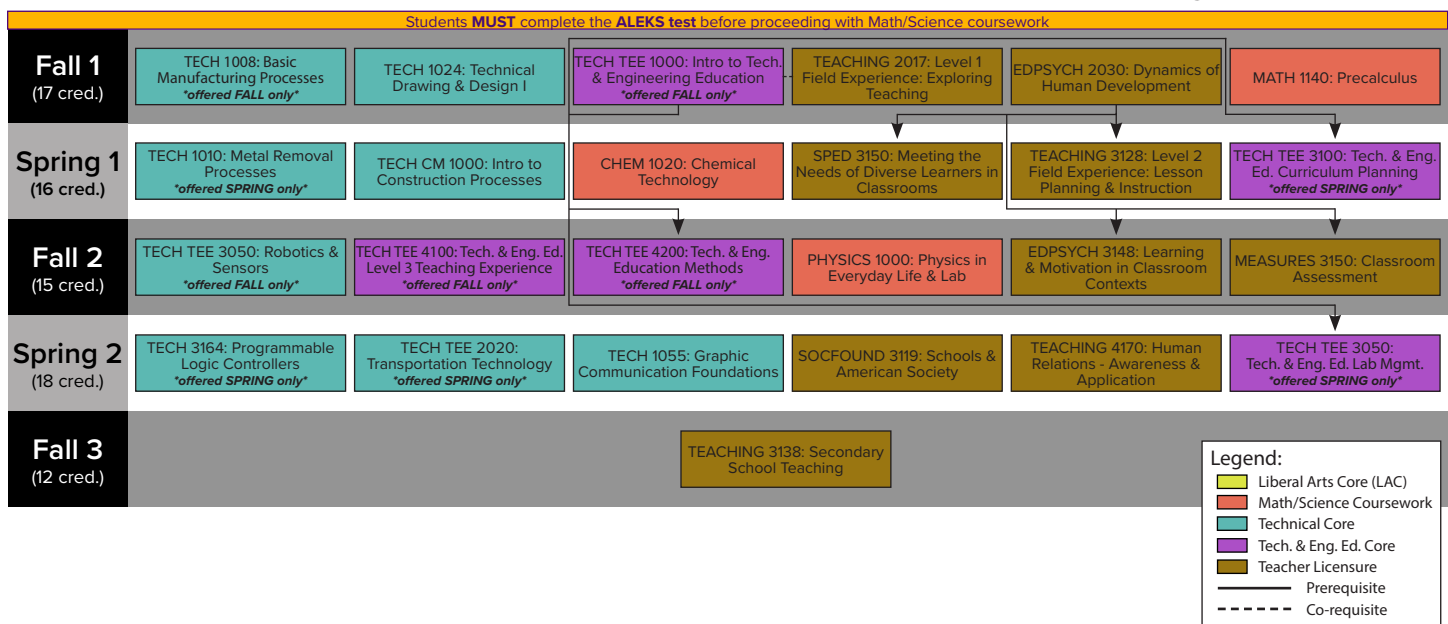
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## Example course sequence for *first-year, freshman* students



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



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