Technology & Engineering Education

- Bachelor of Science (B.S.)
- Recommended Course Sequence

Legend:
- Liberal Arts Core (LAC)
- Math/Science Coursework
- Technical Core
- Tech. & Eng. Ed. Core
- Teacher Licensure
- Prerequisite
- Co-requisite

Fall 1
(15 cred.)

LAC 1A - Cornerstone

LAC 1C

TECH 1008: Basic Manufacturing Processes

TECH 1006: PLTW - Intro. to Engineering Design *offered FALL ONLY*

TECH 1019: Intro. to Tech. & Eng. Education *offered FALL ONLY*

Spring 1
(17 cred.)

LAC 1B - Cornerstone

LAC 3A

MATH 1140: Precalculus (4 cred.)

TECH 1024: Technical Drawing & Design I

TEACHING 2017: Lvl. 1 Field Experience (1 cred.)

EDPSYCH 2030: Dynamics of Human Development (Also satisfies LAC 5C)

Fall 2
(15 cred.)

LAC 1D (2 cred.)

LAC 2A

PHYSICS 1511: General Physics I (4 cred.) (Also satisfies LAC 4B)

TECH CM 1000: Intro to Construction Processes

TEACHING 2017: Lvl. 1 Field Experience (1 cred.)

SPED 3150: Meeting the Needs of Diverse Learners (2 cred.)

Technology & Engineering Education Elective

Spring 2
(15 cred.)

LAC 2A

LAC 5B

TECH 1010: Metal Removal Processes

TEACHING 3128: Teacher as a Change Agent (1 cred.)

EDPSYCH 3148: Learning & Instruction in Classroom Contexts

MEASURES 3150: Classroom Assessment (2 cred.)

Fall 3
(18 cred.)

LAC 1D (2 cred.)

LAC 2A

TECH 1022: Communication Technology

CHEM 1020: Chemical Technology (4 cred.) (Also satisfies LAC 4B)

TECH 3120: Tech & Eng. Ed Curriculum Planning *offered FALL ONLY*

Tech 3190: Tech & Eng. Ed Teaching Methods *offered SPRING ONLY*

Spring 3
(18 cred.)

LAC 4A

LAC 5A

TECH 3010: PLTW - Principles of Engineering *offered SPRING ONLY*

TECH 3102: Living in our Techno-Social World (Also satisfies LAC 6)

TECH 4290: PLTW - Digital Electronics *offered SPRING ONLY*

TECH 4195: Tech & Eng. Ed Lab Management *offered FALL ONLY*

Socfound 3119: Schools & American Society

TEACHING 4170: Human Relations - Awareness & Application

Fall 4
(18 cred.)

LAC 2B

TECH 3114: Product Development & Enterprise *offered FALL ONLY*

Technology & Engineering Education Elective

Spring 4
(12 cred.)

TEACHING 3138: Secondary School Teaching

* All classes receive 3 credit hours unless otherwise noted.

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
Technology & Engineering Education  
• Bachelor of Science (B.S.)  
• Program Curriculum

<table>
<thead>
<tr>
<th>Mathematics/Science coursework</th>
<th>12 cred.</th>
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</table>
| CHEM 1020 - Chemical Technology | 4 cr.  
  • course also satisfies LAC category 4B |
| MATH 1140 - Precalculus      | 4 cr.  
| PHYSICS 1400 - Conceptual Physics | 4 cr.  
| or PHYSICS 1511 - General Physics I | 4 cr. |
  • both courses also satisfy LAC category 4B

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<thead>
<tr>
<th>Technology &amp; Engineering Core</th>
<th>36 cred.</th>
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</table>
| TECH 1006 - Project Lead the Way: Intro to Engineering Design | 3 cr.  
| TECH 1008 - Basic Manufacturing Processes | 3 cr.  
| TECH 1010 - Metal Removal Processes | 3 cr.  
| TECH 1022 - Communication Technology | 3 cr.  
| TECH 1024 - Technical Drawing & Design I | 3 cr.  
| TECH 3010 - Project Lead the Way: Principles of Engineering | 3 cr.  
| TECH 3114 - Product Development & Enterprise | 3 cr.  
| TECH 4290 - Project Lead the Way: Digital Electronics | 3 cr.  
| TECH CM 1000 - Introduction to Construction Processes | 3 cr.  
| Technology & Engineering Education Electives** | 9 cr. |

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<tr>
<th>Technology &amp; Engineering Education Core</th>
<th>12 cred.</th>
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| TECH 1019 - Introduction to Technology & Eng. Education | 3 cr.  
| TECH 3120 - Technology & Eng. Education Curriculum Planning | 3 cr.  
| TECH 3190 - Technology & Eng. Education Teaching Methods | 3 cr.  
| TECH 4195 - Technology & Eng. Education Lab Management | 3 cr.  

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<tr>
<th>Teacher Licensure coursework</th>
<th>30 cred.</th>
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| TEACHING 2017 - Level 1 Field Experience: Exploring Teaching | 1 cr.  
| EDPSYCH 2030 - Dynamics of Human Development | 3 cr.  
  • course also satisfies LAC category 5C |
| SPED 3150 - Meeting the Needs of Diverse in Classrooms | 2 cr.  
| TEACHING 3128 - Lvl 2 Field Exp.: Teachers as a Change Agent | 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 - Aware & Application | 3 cr.  
| TEACHING 3138 - Secondary School Teaching | 12 cr.  

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<thead>
<tr>
<th>Liberal Arts Core (LAC)</th>
<th>44-45 cred.</th>
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<tr>
<td>Category I - Core Competencies</td>
<td>11 cred.</td>
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</tbody>
</table>
| A. Reading & Writing | 3 cr.  
  • must complete this requirement with a grade of C- or better to be admitted into UNI Teacher Education program. |
| B. Speaking & Listening | 3 cr.  
  • must complete this requirement with a grade of C- or better to be admitted into UNI Teacher Education program. |
| C. Quantitative Techniques & Understanding | 3 cr.  
  • must complete this requirement with a grade of C- or better to be admitted into UNI Teacher Education program. |
| D. Personal Wellness | 2 cr.  

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<tr>
<th>Category II - Civilizations &amp; Cultures</th>
<th>9 cred.</th>
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</table>
| A. Humanities | 6 cr.  
| B. Non-Western Cultures | 3 cr.  

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<tr>
<th>Category III - Fine Arts, Literature, Philosophy &amp; Religion</th>
<th>6 cred.</th>
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</table>
| A. Fine Arts | 3 cr.  
| B. Literature, Philosophy or Religion | 3 cr.  

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<tr>
<th>Category IV - Natural Science &amp; Technology</th>
<th>7 cred.</th>
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| A. Life Sciences | 3 cr.  
  • category completed with CHEM 1020 or PHYSICS 1511 |
| B. Physical Science | 4 cr.  

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<tr>
<th>Category V - Social Science</th>
<th>9 cred.</th>
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| A. Sociocultural & Historical Perspectives | 3 cr.  
| B. Individual & Institutional Perspectives | 3 cr.  
| C. Topical Perspectives | 3 cr.  
  • category completed with EDPSYCH 2030 |

| Category VI - Capstone Experience | 2-3 cred. |

** Electives should be chosen to help student meet requirements for Technology & Engineering teaching licensure. Students must have six credits of coursework in three of the following five areas of curriculum: communications, construction, manufacturing, power & energy and transportation. Students must have three credits in the remaining two areas.

For detailed information regarding the Liberal Arts core (LAC), please visit www.uni.edu/lac.

<table>
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<tr>
<th>Credit Totals</th>
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</table>
| Math/Science coursework | 12 cr.  
| Technology & Engineering core | 36 cr.  
| Technology & Engineering Ed. core | 12 cr.  
| Teacher Licensure coursework | 30 cr.  
| Liberal Arts core (LAC) | 45 cr.  
| Credits counted twice (major & LAC) | -7 cr.  
| Grand Total | 128 cr.  

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