Millersville University
Welcomes you
Department of
Applied Engineering
Safety & Technology
AEST Master’s Degrees

• M.S. in Technology & Innovation
  • Two Concentrations
    • Education Concentration
    • Enterprise Concentration
  • Three degree completion options for each concentration
    • Thesis – 30 credit hours
    • Technical Project – 33 credit hours
    • Course Work – 36 credit hours
# Program of Study

## Technology & Innovation Program Common Core

- EDTE 613: Fostering Creativity by Design (3)
- EDTE 640: Engineering Principles and Concepts for the Non-Engineer (3)
- EDTE 650: Applying Critical Thinking & Decision Making (3)
- EDTE 646: Writing the Professional Paper (3)

(Select One of the Following Program Completion Concentrations)

## Education Concentration

### Education Core

<table>
<thead>
<tr>
<th>Research</th>
<th>EDTP 624: Methods of Research (3)</th>
<th>Sem</th>
<th>Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social</td>
<td>EDTP 513: Comparative Educ (3)</td>
<td>Sem</td>
<td>Grade</td>
</tr>
<tr>
<td>Area</td>
<td>EDTP 590: Soc. Policy of Edu (3)</td>
<td>Sem</td>
<td>Grade</td>
</tr>
<tr>
<td>(Select One)</td>
<td>EDTP 688: Educ Public Policy (3)</td>
<td>Sem</td>
<td>Grade</td>
</tr>
</tbody>
</table>

| Psychology | PSY 522: Ad. Br. Psychology (3) | Sem | Grade |
| Area       | PSY 576: Add. Alcohol/Drug Psych (3) | Sem | Grade |
| (Select One) | PSY 592: Human Growth & Development | Sem | Grade |
|            | EDTP 554: Ad. Ed. Psychology (3) | Sem | Grade |

## Enterprise Concentration

### Enterprise Core

<table>
<thead>
<tr>
<th>Business</th>
<th>RUAD 670: Strategy &amp; Policy (3)</th>
<th>Sem</th>
<th>Grade</th>
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</thead>
<tbody>
<tr>
<td>Courses</td>
<td>RUAD 655: Operations Management (2)</td>
<td>Sem</td>
<td>Grade</td>
</tr>
</tbody>
</table>

| Analytics | MATH 501: Probs & Stats for Educators (4) | Sem | Grade |
| Statistics| MATH 516: Statistical Methods (7) | Sem | Grade |
| Consulting | MATH 510: Problem-Solving Seminar (3) | Sem | Grade |

(Select One Degree Completion Option)

## Degree Completion Option 1: Thesis

(30 s.h.)

<table>
<thead>
<tr>
<th>EDTE 699: Thesis</th>
<th>(6)</th>
<th>Sem</th>
<th>Grade</th>
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</thead>
<tbody>
<tr>
<td>Elective</td>
<td>(3)</td>
<td>Sem</td>
<td>Grade</td>
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</tbody>
</table>

## Degree Completion Option 2: R & D Technical Project

(33 s.h.)

<table>
<thead>
<tr>
<th>EDTE 698: R &amp; D Report</th>
<th>(6)</th>
<th>Sem</th>
<th>Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elective 1</td>
<td>(3)</td>
<td>Sem</td>
<td>Grade</td>
</tr>
<tr>
<td>Elective 2</td>
<td>(3)</td>
<td>Sem</td>
<td>Grade</td>
</tr>
</tbody>
</table>

## Degree Completion Option 3: Course Work

(36 s.h.)

| Elective 1             | (3) | Sem | Grade |
| Elective 2             | (3) | Sem | Grade |
| Elective 3             | (3) | Sem | Grade |
| Elective 4             | (3) | Sem | Grade |
| Elective 5             | (3) | Sem | Grade |

## Degree Completion Option 4: Course Work

(36 s.h.)

| Elective 1             | (3) | Sem | Grade |
| Elective 2             | (3) | Sem | Grade |
| Elective 3             | (3) | Sem | Grade |
| Elective 4             | (3) | Sem | Grade |
| Elective 5             | (3) | Sem | Grade |

• Cumulating Experience  
• Field Experience  
• Advancement to Candidacy

Date Completed: __________________

* All electives must be 500+ level courses and approved by the program coordinator.
EDTE 603: FOSTERING CREATIVITY BY DESIGN
This course will expose students to the concept of how creativity, within the context of the technological world, is manifested through design. The course is appropriate for all graduate students especially those in education, technological fields, and entrepreneurship. Prerequisites: Graduate student standing. Offered biennially.

EDTE 604: ENGINEERING PRINCIPLES AND CONCEPTS FOR THE NON-ENGINEER
In this course, which is intended for the non-engineer, students will learn what engineers do and how they do it. Prerequisites: Graduate student standing. Offered biennially.

EDTE 605: APPLYING CRITICAL THINKING AND DECISION-MAKING
This course is an exploration of the nature and application of critical thinking toward acts of decision-making. Prerequisites: Graduate student standing. Offered biennially.

EDTE 646: WRITING THE PROFESSIONAL PAPER
Development of competencies for identifying and developing graduate research topics and for publishing in professional literature. Prerequisites: Graduate student standing. Offered biennially.
Specialized Interest Areas

This degree offers opportunities for students to take courses in a variety of programs which address the range of student interests. In addition to allowing the transfer of up to 9 credits of graduate course work from other accredited colleges and universities, students can take courses from other graduate programs at Millersville which include, but are not limited to:

- Applied Engineering
- Art & Design
- Business and Management
- Education Foundations
- Early Childhood Education
- Emergency Management
- English
- Entrepreneurship
- Gifted Education
- Integrative Science Applications
- Mathematics
- Psychology
- Sports Management
- STEM Education
- Technology & Engineering Education
Additional Credentials Available

While you are earning your graduate degree in Technology & Innovation you can also earn additional credentials/certificates in other specialized interest areas including, but not limited to:

Innovation and Entrepreneurship

STEM Education

Gifted Education

Online Teaching
AEST offers a wide range of hands-on, applied engineering courses which graduate students can also take. These courses come from all seven of the technical concentrations listed below.

• Advanced Manufacturing
• Construction Management
• Computer-Aided Drafting & Design
• General Technology
• Graphic Communication
• Nanofabrication Manufacturing
• Robotics & Control Systems
Advanced Manufacturing
AEST

Computer-Aided Drafting & Design
Construction Management

Construction Technology
General Technology
Graphic Communication
AEST

Nanofabrication Manufacturing Technology

Hands-on Lab Experiences at Millersville

and at Penn State in their Nanofabrication Laboratory
Automation & Intelligent Robotics Engineering Technology
Get Involved

Student Life at MU

Graduate students can also be members of any of the student organizations in the department and across campus.

- American Society of Safety Engineers
- Association of Technology, Management, & Applied Engineering
- Marauder Graphics
- Society of Manufacturing Engineers
- Submersible Research Team
- Technology & Engineering Education Collegiate Association
- Graduate Student Association, and
- Any one of the 216 student run organizations recognized by MU!
Why Consider a M.S. in Technology & Innovation at MU?

• Highly customizable to your professional development needs!
• Lots of opportunity for student-student and student-teacher interaction by using both face-to-face and blended delivery of courses!!
• All courses are taught by instructors with expertise in the subject who have terminal degrees!!!
• Diversity in the students and the faculty provide an enriching experience and a wider perspective for everyone!!!!
• We will change the way you think about your own thinking!!!!!