



## Engineering Technology, B.S. *major*

The Engineering Technology program prepares individuals for a wide range of career opportunities in engineering, manufacturing engineering, field engineering, project management, product development, quality assurance, safety, and sustainable energy. Courses provide hands on skills in manufacturing processes, computer-aided drafting, CNC machining, design engineering, materials selection, quality assurance, lean six-sigma, and project management.

Required Credits: 77

Required GPA: 2.25

### I TADT COMMON CORE

Complete the following courses:

- TADT 1111 Introduction to Project Management (3 credits)
- TADT 3267 Economic and Cost Analysis (3 credits)
- TADT 3873 Capstone Preparation (1 credit)
- TADT 3880 Quality Assurance (3 credits)
- TADT 4867 Lean Principles and Practices (3 credits)
- TADT 4873 Emphasis Related Capstone (3 credits)

Complete the following internships:

TADT 3970, complete for 1 credit

TADT 4970, complete for 2 credits

Note: Transfer students with an AS or AAS degree, who do not have internship credits, can take TADT 3970 and TADT 4970 concurrently to satisfy the 3-credit internship requirement.

- TADT 3970 Internship (1-3 credits)
- TADT 4970 Internship (1-12 credits)

OR

See your advisor regarding an internship Coop option:

- TADT 4971 Internship: Coop (1-12 credits)

### II ENGINEERING TECHNOLOGY CORE COURSES

Complete the following courses:

- MATH 1470 Precalculus (3 credits)
- PHYS 1101 General Physics I (4 credits)
- PHYS 1102 General Physics II (4 credits)
- TADT 1464 Engineering Technology Project I (3 credits)
- TADT 2217 Strength of Materials (3 credits)
- TADT 2465 Engineering Technology Project II (3 credits)
- TADT 2877 Engineering Problem Solving (3 credits)
- TADT 3217 Materials Science and Metallurgy (3 credits)
- TADT 3277 Programmable Logic Controllers (3 credits)
- TADT 3462 Computer Controlled Machining (3 credits)
- TADT 3537 Engineering Design (3 credits)
- TADT 4899 Design of Experiments (3 credits)

### III ENGINEERING TECHNOLOGY LAB COURSES

Complete the following courses:

- TADD 3558 TAD LAB: Machining (2 credits)
- TADD 3559 TAD LAB: Traditional Woods (2 credits)
- TADD 3660 TAD LAB: Welding (2 credits)
- TADD 3680 TAD LAB: AutoCAD (2 credits)
- TADD 3690 TAD LAB: SolidWorks (2 credits)

- TADD 4690 TAD LAB: Geometric Dimensioning and Tolerancing (2 credits)
- TADD 4699 TAD LAB: Finite Element Analysis (2 credits)

Choose 6 credits from the following list of courses:

- TADD 3448 Autodesk Fusion 360 (2 credits)
- TADD 3480 Ceramics: Hand & Wheel (4 credits)
- TADD 3551 Autodesk 3ds Max I (2 credits)
- TADD 3557 TAD LAB: Molding & Casting (2 credits)
- TADD 3667 TAD LAB: Finishing & Aesthetics (2 credits)
- TADD 3668 TAD LAB: Laser (2 credits)
- TADD 3677 TAD LAB: 3D Printing (2 credits)
- TADD 3678 TAD LAB: CNC Woods (2 credits)
- TADD 3689 TAD LAB: Lab Electronics (2 credits)
- TADT 3971 Internship: Lean Six Sigma (2 credits)
- TADT 4971 Internship: Coop (1-12 credits)

### Program Learning Outcomes | Engineering Technology, B.S.

1. Readiness for Career: Students will apply resource management skills to address real world problems.
2. Higher Order Thinking: Students will analyze, design, and implement solutions to current industry needs.
3. Communication & Leadership: Students will demonstrate professional communication skills, ethical behavior, and effective team participation.
4. Knowledge, Values, & Abilities: Students will employ value-added skills in real world applications that reflect the needs of industry.