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.

A total of 120 semester credits are needed for the **Engineering Technology major B.S.** degree and include the following:

- Completion of a minimum of 40 upper division credits (level 3000/4000)
- Completion of all required major credits
- Completion of Core Curriculum credits (Minnesota Transfer Curriculum [MnTC] Goal Areas 1-10 with a minimum of 40 credits) required for all baccalaureate degrees
- Completion of BSU Focus and Nisidotaading Course Requirements

Dual Degrees
Students wishing to complete two degrees concurrently, (example: Bachelor of Science and Bachelor of Arts) must complete a minimum of an additional 30 credits above the required 120 credits.

Multiple Credentials
Any additional major, minor or certificate in a degree must have at least 6 credits of course work not used to meet the requirements of another major, minor or certificate in the degree.

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:

- TADD3558
- TADD3559
- TADD3660
- TADD3680
- TADD3690
- 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)
- TADD3557
- TADD3667
- TADD 3668 TAD LAB: Laser (2 credits)
- TADD3677
- TADD3678
- TADD3689
- 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.