Applied Engineering, B.A.S. *major*

Our Bachelor of Applied Science (BAS) Applied Engineering program is designed to help students build directly upon their past education, including certificate, diploma or two-year technical degree programs. Even if you do not have prior college-level education, you can complete some technical courses on BSU's campus to fulfill degree requirements.

A total of 120 semester credits are needed for the **Applied Engineering, B.A.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 Applied Science and Bachelor of Science) 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: 78
Required GPA: 2.25

I TADT COMMON CORE

Complete the following courses:

- TADT 3111 Project Management Methodology (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)

II APPLIED ENGINEERING CORE

Complete the following courses:

- TADT 3100 Principles of Professional Development (3 credits)
- TADT 3217 Materials Science and Metallurgy (3 credits)
- TADT 3537 Engineering Design (3 credits)
- TADT 3700 Operations Planning and Control (3 credits)
- TADT 3887 Safety and Risk Management (3 credits)
- TADT 4880 Total Quality Management (3 credits)
- TADT 4898 Simulation of Industrial Processes (3 credits)

III TRANSFER TECHNICAL BLOCK

Requires 38 technical credits transferred from an A.S. or A.A.S. degree, or a diploma (e.g., Manufacturing Technology, Automation Technology)

IV REQUIRED TADT ELECTIVES

Select 3 credits from the following:

- TADT 4727 Procurement and Inventory Control (3 credits)
- TADT 4827 Information Technology in Supply Chain (3 credits)
- TADT 4875 Facilities Management (3 credits)
- TADT 4899 Design of Experiments (3 credits)

PROGRAM LEARNING OUTCOMES | APPLIED ENGINEERING, B.A.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.