



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

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The Applied Engineering Program is designed to prepare individuals to work in a variety of applied engineering career paths in business or industry. The program is designed specifically for individuals who typically possess a two-year technical degree and are interested in advancing their professional career. The program is a “2+2” degree that permits students to apply their 2 year technical degree credits toward a baccalaureate degree. Coupled with a two-year technical degree providing a focused foundation, students will complete junior- and senior-level courses covering a broad range of applied engineering concepts and applications. This breadth will provide maximum flexibility for graduates to pursue diverse employment opportunities. Completion of the degree is available through a web-based distance delivery format. Students should work closely with an advisor to obtain program and course selection information.

**Note:** Transfer students must take a minimum of 30 semester credits from Bemidji State University. Forty (40) upper division semester credits are also required for graduation.

Required Credits: 67  
Required GPA: 2.25

### I REQUIRED TECHNICAL CORE COURSES

Requires 26 technical credits transferred from an A.S. or A.A.S. degree, or a diploma (e.g., Manufacturing Technology, Automation Technology)

### II REQUIRED APPLIED ENGINEERING TECHNOLOGY CORE

COMPLETE THE FOLLOWING COURSES:

- TADT 3100 Principles and Practices of Professional Development (2 credits)
- TADT 3267 Engineering Economic and Cost Analysis (4 credits)
- TADT 3700 Production Planning and Control (4 credits)
- TADT 4537 Industrial Design/Innovation (4 credits)
- TADT 4878 Quality Assurance (4 credits)
- TADT 4879 Service Process Design and Improvement (4 credits)
- TADT 4897 Project Management (4 credits)

### III APPLIED ENGINEERING TECHNOLOGY ELECTIVES

SELECT 12 CREDITS FROM THE FOLLOWING WITH ASSISTANCE FROM A FACULTY ADVISOR:

- BUAD 3281 Decision Support Systems (3 credits) \*\*
- BUAD 3361 Marketing (3 credits) \*\*
- BUAD 3381 Management Information Systems (3 credits) \*\*
- BUAD 4469 Small Business Case Analysis (3 credits) \*\*
- TADT 3217 Materials Science and Metallurgy (4 credits)
- TADT 3260 Project Bidding and Estimating (4 credits)
- TADT 3460 3D Parametric Modeling and Printing (4 credits)
- TADT 3877 Engineering Problem Solving (4 credits)
- TADT 3878 Industrial/Engineering Production Studies (4 credits)
- TADT 3885 Technical Sales, Service and Training (4 credits)
- TADT 4385 Sustainability and Emerging Technologies (4 credits)
- TADT 4778 Advanced Topics in Technology (4 credits)
- TADT 4875 Facilities Management (4 credits)

\*\* require prerequisites, or junior status and consent of instructor

MAY INCLUDE TADT 4970 FOR 1-2 CREDITS

- TADT 4970 Internship (1-12 credits)

### IV REQUIRED ENGINEERING CAPSTONE

COMPLETE THE FOLLOWING COURSE:

- TADT 4820 Engineering Case Study (3 credits)