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.

For more information email Dr. James McCracken at jmccracken@bemidjistate.edu or by phone at 218.755.2954.

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.
I. Required Technical Core - 26 credits
Requires 26 technical credits transferred from an A.S. or A.A.S. degree or diploma (e.g., Manufacturing Technology, Automation Technology), or 26 technical credits from the Department of Technology, Art & Design course offerings with help of TADT advisor.

On-Campus (Non-Transfer) Option
TADT 1210 Material and Processes Forming (3 credits)
TADT 1220 Material and Processes Separating (3 credits)
TADT 1315 Energy and Power Technology (3 credits)
TADT 1350 Electrical/Electronics Technology (3 credits)
TADT 1460 Technical Graphics (3 credits)
TADT 2250 Construction Technology (3 credits)
TADT 2370 Automation Technology (3 credits)
Select an additional 5 technical credits with help of TADT advisor.

II. Required Applied Engineering Technology Core - 26 credits
TADT 3100 Principles and Practices of Professional Development (2 credits)
TADT 3267 Engineering Economics 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 - 12 credits
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 Material Science and Metallurgy (4 credits)
TADT 3260 Project Bidding and Estimating (4 credits)
TADT 3460 Parametric 3-D Modeling (4 credits)
TADT 3877 Engineering Problem Solving (3 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 4777 Advanced Topics in Quality (4 credits)
TADT 4875 Facilities Management (4 credits)
TADT 4970 Internship (1-2 credits)
** require prerequisites, or junior and consent of instructor

IV. Required Engineering Capstone - 3 credits
TADT 4820 Engineering Case Study (3 credits)

Total Semester Credits Required for Major: 67 Credits
Bachelor of Applied Science Degree Summary
Required Technical Core (26 credits)
Required Applied Engineering Technology Core (26 credits)***
Applied Engineering Technology Electives (12 credits)***
Required Engineering Capstone (3 credits)
Liberal Education (42 credits)
Free Electives (11 credits)
Degree Total (120 credits)
***Applied Engineering Technology Core credits (26) plus Applied Engineering Technology Electives credits (12) equals 41 upper division credit requirement.

Please Note: Upon approval of the Technology, Art & Design faculty, certain major courses may be substituted in the Applied Engineering Technology Core and/or Applied Engineering Electives from related Technical and Community College Programs.

A member of the Minnesota State Colleges and Universities system, Bemidji State University is an equal opportunity educator and employer.