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

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.

Required Credits: 69
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:

- IT 3100 Principles and Practices of Professional Development (2 credits)
- IT 3267 Engineering Cost Analysis (3 credits)
- IT 3460 Parametric 3-D Modeling (3 credits)
- IT 3700 Production Planning and Control (3 credits)
- IT 3877 Engineering Problem Solving (3 credits)
- IT 4460 Design for Manufacturability (3 credits)
- IT 4878 Quality Assurance (3 credits)
- IT 4879 Service Process Design and Improvement (3 credits)
- IT 4897 Project Management (3 credits)

**III APPLIED ENGINEERING TECHNOLOGY ELECTIVES**

SELECT 14 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 3771 Financial Management (3 credits)
- ENGL 3155 Professional Writing (3 credits)
- IT 3217 Materials Science And Metallurgy (3 credits)
- IT 3870 Technical Sales/Presentations (2 credits)
- IT 3879 Performance Measurement (3 credits)
- IT 3880 Human Resource Development (2 credits)
- IT 4537 Industrial Design (3 credits)
- IT 4777 Advanced Topics in Quality (3 credits)
- IT 4877 Industrial Maintenance And Safety (3 credits)
- IT 4880 Total Quality Management (3 credits)
- IT 4970 Internship (1-12 credits)

**IV REQUIRED ENGINEERING CAPSTONE**

COMPLETE THE FOLLOWING COURSE:

- IT4820

Degree Summary

Required Technical Core (26 credits)
Required Applied Engineering Technology Core (26 credits)***
Applied Engineering Technology Electives (14 credits)***
Required Engineering Capstone (3 credits)
Liberal Education (42 credits)
Free Electives (17 credits)
Total = 128 credits

***Applied Engineering Technology Core credits (26) plus Applied Engineering Technology Electives credits (14) = 40 upper division credit requirement.

Note: Upon approval of the Technological Studies staff, certain major courses may be substituted in the Applied Engineering Technology Core and/or Applied Engineering Technology Electives from related Technical and Community College Programs.