

Engineering Technology Program

Mission Statement

The mission of the Engineering Technology program is to prepare graduates with the technical and managerial skills necessary to enter careers in process and systems design, technical sales, manufacturing operations, maintenance or service functions of a manufacturing enterprise. Further, the program supports the University's mission and commitment to the community as it provides industries in North Carolina and the regions with graduates capable of being immediately productive, and a faculty responsive to the region's economic growth.

Educational Objectives:

1. To produce graduates with the combined engineering applications and theoretical education to be attractive candidates for industry.
2. To produce well rounded professional engineering technology graduates who value lifelong learning and recognize social and ethical responsibilities.
3. To produce graduates who communicate effectively.

Program Outcomes/Assessment:

The following outcomes describe what students are expected to know and be able to execute by the time of graduation. The courses listed below are used to assess the comprehension of each outcome.

- a. An appropriate mastery of the knowledge, techniques, skills and modern tools of the disciplines.
 - ET 132 – Engineering Graphics
 - ET 231 – 3D Computer Modeling
 - ET 441 – Power Transmission
 - ET 478 – Senior Project
- b. An ability to apply current knowledge and adapt to emerging applications of mathematics, science, engineering and technology.
 - ET 141 – Engineering Materials and Processes
 - ET 232 – Statics and Strength of Materials
 - ET 331 – Quality Systems

- c. An ability to conduct, analyze and interpret experiments and apply experimental results to improve processes.
 - ET 141 – Engineering Materials and Processes
 - ET 351 – Engineering Analysis
- d. An ability to apply creativity in the design of systems components or processes appropriate to program objectives.
 - ET 410 – Advanced 3D Computer Modeling and Rapid Prototyping
 - ET 478 – Integrated Systems Project
- e. An ability to function effectively on teams.
 - ET 461 – Engineering Project Management
 - ET 478 – Integrated Systems Project
- f. An ability to identify, analyze and solve technical problems.
 - ET 232 – Statics and Strength of Materials
 - ET 441 – Power Transmission
 - ET 461 – Engineering Project Management
 - ET 478 – Integrated Systems Project
- g. An ability of communicate effectively.
 - ET 132 – Engineering Graphics
 - ET 362 – Engineering Logistics
 - ET 441 – Power Transmission
- h. Recognition of the need for, and ability to engage in lifelong learning.
 - ET 231 – 3D Computer Modeling
 - ET 331 – Quality Systems
 - ET 478 – Integrated Systems Project
- i. An ability to understand professional, ethical, and social responsibilities.
 - ET 335 – Occupational Safety Standards
- j. A respect for diversity and knowledge of contemporary professional, societal and global issues.
 - ET 335 – Occupational Safety Standards
 - ET 436 – Engineering Economic Analysis
- k. A commitment to quality, timeliness, and continuous improvement.
 - ET 436 – Engineering Economic Analysis

Additional sources of information may be used to determine if objectives and outcomes are being met, such as alumni surveys, graduate surveys, and employer feedback.