

WESTERN CAROLINA UNIVERSITY

B.S. ENGINEERING TECHNOLOGY

The B.S. in Engineering Technology with a focus on Applied Systems Technology builds on a background in applied science and mathematics. There is a strong emphasis on integrating theory and applications for mechanical systems, computer-aided modeling, manufacturing and production processes, rapid prototyping, automation, quality assurance, and development of automated/robotics systems. The program's mission is to prepare graduates with the technical and managerial skills necessary to enter careers in process and systems design, technical sales, manufacturing operations, and maintenance functions of a manufacturing enterprise. This degree program is ABET accredited.

CAREER PATHS

Industries

- Advanced Manufacturing Systems
- Manufacturing
- Automation
- Renewable Energy
- Aerospace
- Online Commerce
- Power Distribution
- Technical Sales

Job Titles

- Manufacturing Engineer
- Quality Engineer
- Industrial Engineer
- Technical Sales Engineer
- Process Engineer
- Product Development Engineer

Income Data for Typical BS ET Graduates

U.S. salary data collected from O*NET OnLine (2024)

- Early Career: \$71,827 to \$89,073
- Mid-career: \$114,700 to \$147,670

LABS

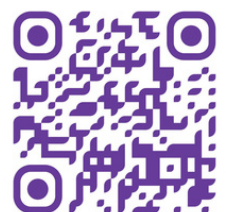
CNC Machining
Makerspace
Rapid Prototyping
Automation & Controls
Materials & Manufacturing Processes
3D Solid Modeling
Hydraulic Power
Electrical Systems

SENIOR CAPSTONE PROJECT

2-semester Project
Faculty & Industry Mentors
Partnership with Industries
Industry Sponsored

THE RAPID CENTER

Applied Experiences
Research & Development



B.S. ENGINEERING TECHNOLOGY

WCU 8-Semester Plan - Fall 2025

YEAR 1

Fall		
Course #	Course Name	Hours
ENGR 199	Intro. Engr Prac & Principles I	3
ENGR 132	Engineering Graphics	3
MATH 146	Precalculus II (C2)	4
Perspective		3
Perspective		3
	Total Hours	16

Spring		
Course #	Course Name	Hours
ET 141	Engineering Materials and Processes	3
ENGL 101	Writing and Rhetoric (C1)	3
Wellness (C4)		3
Perspective		3
Perspective		3
	Total Hours	15

YEAR 2

Fall		
Course #	Course Name	Hours
ENGR 200	Engr Practices & Principles II	3
ENGR 231	3D Solid Modeling	3
MATH 153	Calculus I	4
PHYS 130	Introductory Physics I (C5)	4
ENGL 202	Writing & Critical Inquiry (C1)	3
	Total Hours	17

Spring		
Course #	Course Name	Hours
ET 232	Engineering Statics	3
ENGR 251	Engineering Process Control	3
CHEM 139	General Chemistry (C5)	4
COMM 201	Foundations of Communication (C3)	3
Perspective		3
	Total Hours	16

YEAR 3

Fall		
Course #	Course Name	Hours
ENGR 350	Engr Prac & Principles III	3
ECET 201	Electrical Systems	3
ET 331	Quality Systems	3
ET 349	Rapid Tooling and Prototyping	3
ET 332	Strength of Materials	3
ET 333	Strength of Materials Lab	1
	Total Hours	16

Spring		
Course #	Course Name	Hours
ET 310	Ad. 3D Comp Modeling & Rapid Prototyping	3
ET 351	Engineering Analysis	3
ENGR 352	Thermodynamics and Heat Transfer	3
ET 334	Lean Six Sigma	3
ET 449	Advanced Manufacturing Systems	3
	Total Hours	15

YEAR 4

Fall		
Course #	Course Name	Hours
ENGR 400	Engineering Capstone I	3
ET 420	Advanced Engineering Materials	3
ET 436	Engineering Economic Analysis	3
ET 441	Power Transmission Systems	3
Tech Elective		3
	Total Hours	15

Spring		
Course #	Course Name	Hours
ENGR 450	Engineering Capstone II	3
ET 425	Metrology and Reverse Engineering	3
ET 472	Integrated Control Systems	3
ULP		3
Tech Elective		3
	Total Hours	15

Notes:

- Total for degree: 125 Credit Hours
- Minimum GPA in major: 2.30
- Upper Level Perspective (ULP): An approved ULP course is required at the 300-400 level in one of Liberal Studies Perspectives categories.
- This 8-semester plan should be used FOR REFERENCE ONLY. Students can find degree requirements via Degree Audit.