

WESTERN CAROLINA UNIVERSITY

B.S. ELECTRICAL AND COMPUTER ENGINEERING TECHNOLOGY

The B.S. in Electrical and Computer Engineering Technology (ECET) emphasizes the application of electronics and microcontrollers in automation, instrumentation, control system, and data communication applications. Students in the program learn how to apply practical knowledge of mathematics, science, and engineering technology to today's technical challenges. The project-based learning (PBL) curriculum emphasizes the problem-solving, team-based learning, and communication skills needed to work in all industry sectors. This degree program is ABET accredited.

CAREER PATHS

Industries

- Energy
- Aerospace & Defense
- Automotive & Transportation
- Communications
- Advanced Manufacturing
- Robotics & Automation

Job Titles

- Electronics Engineer
- Software Engineer
- Firmware Engineer
- Controls Engineer
- Product Engineer
- Applications Engineer
- Test Engineer
- Customer Engineer

Income Data Typical for BS ECET Graduates

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

- Early Career: \$73,200 to \$94,600
- Mid-career: \$125,000 to \$161,200

LABS

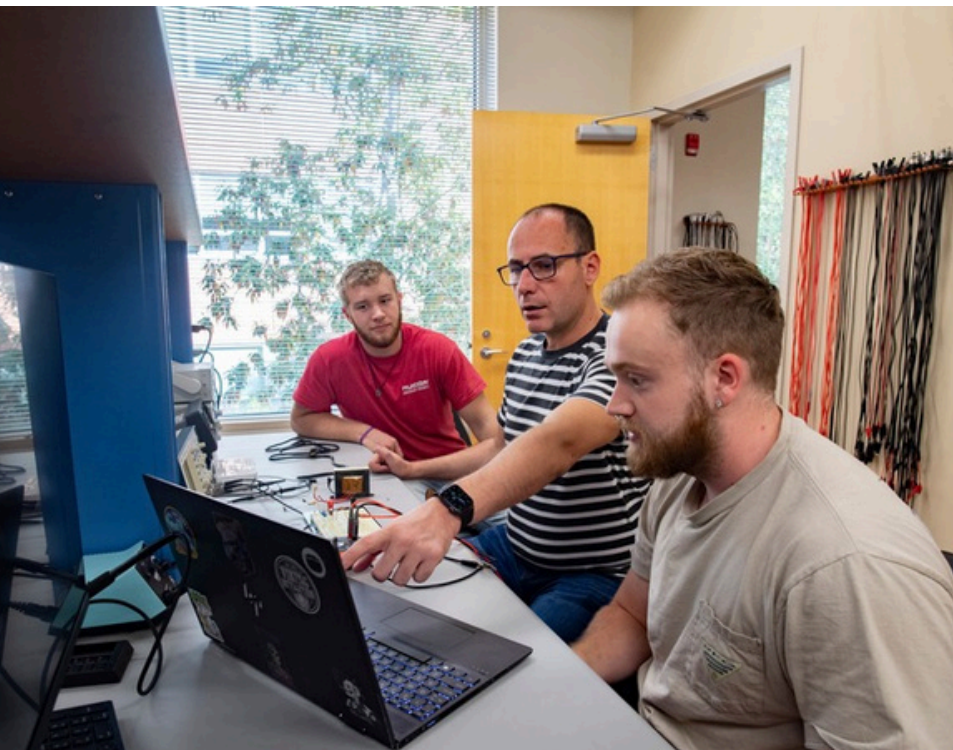
Analog and Digital Electronics
Microcontrollers
Control Systems
Energy Conversion
Printed Circuit Board Fabrication
Engineering Design

SENIOR CAPSTONE PROJECT

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

THE RAPID CENTER

Applied Experiences
Research & Development



B.S. ELECTRICAL & COMPUTER ENGINEERING TECHNOLOGY

WCU 8-Semester Plan - Fall 2025

YEAR 1

Fall		
Course #	Course Name	Hours
ENGR 199	Intro. Engr Prac & Principles I	3
COMM 201	Found. Communications (C3)	3
Wellness (C4)		3
Science (C5)		3
MATH 146	Precalculus (C2)	4
	Total Hours	16

Spring		
Course #	Course Name	Hours
ENGL 101	Writing & Rhetoric (C1)	3
ENGR 123	Engineering Programming	3
PHYS 130	Physics I (C5)	4
Perspective		3
Perspective		3
	Total Hours	16

YEAR 2

Fall		
Course #	Course Name	Hours
ECET 231	Circuit Analysis I	3
PHYS 131	Physics II	4
MATH 153	Calculus I	4
ENGR 200	Engr Prac & Principles II	3
Perspective		3
	Total Hours	17

Spring		
Course #	Course Name	Hours
ECET 250	Electronic Drafting and Fabrication	3
ECET 242	Electronic Circuits	3
ECET 290	Computer Engineering Fundamentals	3
MATH 255	Calculus II	4
ENGL 202	Writing and Critical Inquiry (C2)	3
	Total Hours	16

YEAR 3

Fall		
Course #	Course Name	Hours
ECET 321	Circuit Analysis II	3
EE 221	Logic Systems Design I	3
ECET 221	Digital Integrated Circuits Lab	1
MATH 270	Statistical Methods I (OR MATH 170)	3
CPE 223	Engineering Programming II	3
Perspective		3
	Total Hours	16

Spring		
Course #	Course Name	Hours
ECET 332	Microcontrollers	4
ECET 344	Fundamentals of Energy Conversion	4
ECET 361	Electronic Communication Fundamentals	4
ENGR 350	Engineering Practices & Principles III	3
	Total Hours	15

YEAR 4

Fall		
Course #	Course Name	Hours
ENGR 400	Engineering Capstone I	3
ECET 431	Microcontroller Interfacing	4
ECET 452	Control Systems	4
ECET/EE/RAE	Technical Elective	3
	Total Hours	14

Spring		
Course #	Course Name	Hours
ENGR 450	Engineering Capstone II	3
ECET 461	Digital Signal Processing	3
ECET/EE/RAE	Technical Elective	3
Perspective		3
ULP		3
	Total Hours	15

Notes:

- Total for degree: 125 Credit Hours
- Minimum GPA in major: 2.20
- 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.