

**Central Connecticut State University**  
**School of Engineering, Science, and Technology**

**Degree:** Bachelor of Science  
**Program:** Robotics and Mechatronics Engineering Technology  
**Effective Term:** Fall 2025

Name: \_\_\_\_\_

ID#: \_\_\_\_\_

**General Education: Ways of Understanding:**

**Arts & Humanities (9 credits)**

	Credits	Grade
Literature	3	
	3	
	3	

**Social & Behavioral Sciences (9 credits)**

History	3	
ECON or ET 399	X	
ANTH or PSY or SOC elective	X	

**Math & Natural Sciences (9-10 credits)**

PHYS 125 or PHYS 121	X	
CHEM 161	X	
MATH 119	X	

**General Education: Essential Skills:**

**Written & Oral Communication (6 credits)**

WRT 110	3	
COMM 140	X	

**World Language (0-6 credits) or Gen Ed Free Elective (3 credits)**

World Language course numbered 112 or 118* or Gen Ed Free Elective	3	
--	---	--

**Thriving in College (2-3 credits)**

CCSU 102, 103, or FYE course**	2-3	
--------------------------------	-----	--

A maximum of 16 credits(4 courses) applied towards Ways of Understanding and Essential Skills requirements may be used to fulfill a major and/or minor requirement.

**International & Equity, Justice, & Inclusion (EJI) Requirements:**

International	3	
International	3	
Equity, Justice, & Inclusion***	3	

Coursework applied toward International & EJI requirements may be used in any other area of general education or program requirements.

**Honors Program:** HON courses can be used to fulfill certain general education requirements. Consult the Honors Program curriculum for details.

**Residency Requirements:** A minimum of 30 credits overall must be completed in residence, with at least 15 credits in the major (at least 12 of which must be at the 300 level or above) and 9 credits in a minor at Central. In residence means attending classes conducted on campus or under supervision of Central.

Coursework applied toward Related or Additional requirements may be used in any other area of general education or program requirements.

Free Electives may be used, as needed, to reach the total credits required for the degree when all other degree requirements have been met.

**Major Requirements (55 credits)**

Requires grade of C- or higher, unless otherwise specified.

	Credits	Grade
ROBO 110 Intro to Robotics and Mechatronics	3	
ROBO 210 Engineering Mechanics for Automation	4	
ROBO 220 Parametric Modeling and Simulation	3	
ROBO 240 Electric Machines	3	
ROBO 260 Programmable Controllers	4	
ROBO 280 Embedded Systems Design	3	
ROBO 310 Data Acquisition & Processing	3	
ROBO 320 Fluid Power Control	4	
ROBO 340 Modeling, Simulation in Mechatronics	3	
ROBO 350 Applied Control Systems I	3	
ROBO 370 Mechanisms for Automation	3	
ROBO 380 Mechatronics	4	
ROBO 390 Robotics, Theory and Application	3	
ROBO 460 Applied Control Systems II	3	
ROBO 480 Industrial Robotics	3	
ROBO 496 Industrial Internship	3	
ROBO 497 Capstone: Senior Project	3	
Select two out of four courses (6-9 credits):		
ROBO 425 Advanced Programmable Logic Controllers	3	
ROBO 440 Machine Vision and Image Processing	3	
ROBO 450 Autonomous & Intelligent Mobile Robots	3	
ROBO 470 Robotics Sys Engineering and Analysis	3	

**Additional Requirements (49 credits)**

CET 236 Circuit Analysis	3	
CET 270 Electronic Circuits and Devices for Robotics	3	
CET 363 Digital Circuits	3	
MATH 119 Pre-Calculus with Trigonometry	4	
MATH 152 Calculus I	4	
MATH 221 Calculus II	4	
MATH226 Linear Algebra & Prob for Engineers or MATH228 Introduction to Linear Algebra	4	
MATH 355 Introduction to Differential Equations	4	
MM 216 Manufacturing Processes	3	
ECON Elective or ET 399	3	
ANTH or PSY or SOC Elective	3	
PHYS 125 University Phys I or PHYS 121 Gen Phys I	4	
CHEM 161 General Chemistry	3	
CHEM 162 General Chemistry Lab	1	
COMM 140 Public Speaking	3	

**Is a Minor Required with this Major?**

Yes       No

**Total Credits Required for Degree: 130**

\* Students with 3 years, or more, of one world language at the high school level, a passing score on a world language placement exam, or native proficiency in a language other than English will have the World Language requirement waived and can satisfy this requirement with any general education free elective course (3cr).

\*\* Transfer students with 24 or more transfer credits at the time of admission can satisfy this requirement with any general education free elective (3cr).

\*\*\* Waived for transfer students with 50 or more transfer credits at the time of admission.