Central Connecticut State University
1615 Stanley Street
New Britain, Connecticut 06050-4010
Bachelor of Science
Effective:_____

Name:_____

ID # :_____

Major: Robotics and Mechatronics Engineering Technology

Entry: Fall ☐ , Spring ☐ , Transfer Cr. ☐

General Education	Crs

STUDY AREAS:

I. Arts & Humanities (9 credits)	
English Literature	3
Phil or Fine Arts	3
English Literature or Phil or Fine Arts	3

II. Social Sciences (6 credits)	
History	3
ECON Or ET399	3

III. Behavioral Sciences (3 credits)	
Anthropology or Psychology or Sociology	3

IV. Natural Sciences (8 credits)	
PHYS 125 Or PHYS 121	4
CHEM 161 General Chemistry I	3
CHEM 162 General Chemistry I-LAB	1

SKILL AREAS:

I. Communication Skills (6 credits)	
ENG 110 University Composition	3
COMM 140 Public Speaking	3

II. Mathematics	
MATH 119 Pre-Cal. With Trig.	4
MATH 152-Calc I	4

III. Foreign Language (0-3 Credits)	
	0-3

IV. University Requirements (2 credits)	
PE 144 Fitness/Wellness	2

	Total	**42-45**

Major Requirements (55 credits)	Crs
ROBO 110 Introduction 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 and 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
Total	**55**

At least two out of four courses (6-9 credits)	Cr
ROBO 425 Advance Programmable Logic Controllers	3
ROBO 440 Machine Vision and Image Processing	3
ROBO 450 Autonomous and Intelligent Mobile Robots	3
ROBO 470 Robotics Systems Engineering and Analysis	3

Additional Requirements (24 credits)	Crs
CET236 Circuit Analysis	3
CET 270 Electronic Circuits and Devices for Robotics	3
CET363 Digital Circuits	3
MATH 221 Calc. II	4
MATH226 Linear Algebra and Probability for Engineers, Or MATH228 Introduction to Linear Algebra	4
MATH355 Introduction to Differential Equations	4
MM216 Manufacturing Processes	3
Total	**24**

(Taking Foreign Language) Total Credits =42+3+55+6+24=	130
Total Credits =42+55+9+24=	130

FIRST YEAR

FALL SEMESTER	SPRING SEMESTER
ROBO 110 Intro to Robotics & Mechatronics	**ROBO 220** Parametric Modeling & Simulation
COMM 140 Public Speaking	**MM 216** Manufacturing Processes
WRT 110 Intro to College Writing	**ROBO 260** Programmable Controllers
STUDY AREA I	**PE 144** College Wellness
MATH 119 Pre-Calculus with Trigonometry	**MATH 152** Calculus I
16 Credits	15 Credits

SOPHOMORE YEAR

FALL SEMESTER	SPRING SEMESTER
CHEM 161/2 General Chemistry & Laboratory	**ROBO 210** Engineering Mechanics for Automation
PHYS 125 University Physics I	**CET 236** Circuit Analysis
STUDY AREA I	STUDY AREA III
STUDY AREA II	**MATH 226** Linear Algebra
MATH 221 Calculus II	**MATH 355** Intro to Differential Equations
18 Credits	18 Credits

JUNIOR YEAR

FALL SEMESTER	SPRING SEMESTER
ROBO 370 Mechanisms for Automation	**ROBO 320** Fluid Power Control
ROBO 340 Modeling & Simulation in Mechatronics	**ROBO 350** Applied Control Systems I
ROBO 240 Electric Machines	**ROBO 310** Data Acquisition & Processing
CET 270 Elect. Circuits & Devices for Robotics	**ROBO 280** Embedded Systems Design
CET 363 Digital Circuits	ROBO ELECTIVES
16 Credits	16 Credits

SENIOR YEAR

FALL SEMESTER	SPRING SEMESTER
ROBO 390 Robotics, Theory & Applications	**ROBO 480** Industrial Robotics
ROBO 460 Applied Control Systems II	STUDY AREA II
ROBO 497 Capstone Project	**ROBO 380** Mechatronics
FOREIGN LANGUAGE	FOREIGN LANGUAGE
STUDY AREA I	ROBO ELECTIVES
15 Credits	16 Credits

ROBO 496 Industrial Internship

Summer Semester 3 Credits

→ Prerequisite for course