College of Engineering
TENNESSEE TECH

Degree Map			
CATALOG YEAR: 2022-23		**Degree:** BSEE	**MAJOR:** Electrical Engineering
			CONCENTRATION: Mechatronics

The major map illustrates one path to completing your major, based on faculty members' advice on course sequence and course schedule. This document provides general direction.

Course	Cr. Hrs.	Course	Cr. Hrs.
FIRST YEAR			
Semester: Fall Total Credit Hours: 17		Semester: Spring Total Credit Hours: 17	
ENGL 1010 Writing Composition I	3	ENGL 1020 Writing Composition II	3
MATH 1910 Calculus I	4	MATH 1920 Calculus II	4
CHEM 1110 General Chemistry I	4	CSC 1300 Intro to Problem Solving & Comp Prog	4
ECE 1000 Explorations in ECE	3	ECE 2140 Intro to Digital Systems	4
Humanities/Fine Arts Elective	3	ENGR 1110 Engineering Graphics	2
Course	**Cr. Hrs.**	**Course**	**Cr. Hrs.**
SOPHOMORE YEAR			
Semester: Fall Total Credit Hours: 18		Semester: Spring Total Credit Hours: 17	
ENGL 2130, 2235, or 2330 Literature	3	COMM 2025 or PC 2500 Communication	3
MATH 2120 Differential Equations	3	MATH 2110 Calculus III	4
ECE 2050 Circuits & Electronics I	4	ECE 3050 Circuits & Electronics II	4
PHYS 2110 Cal Based Physics I	4	CEE 2110 Statics	3
CSC 1310 Data Structures & Algorithms	4	MATH 2010 Intro to Linear Algebra	3
Course	**Cr. Hrs.**	**Course**	**Cr. Hrs.**
JUNIOR YEAR			
Semester: Fall Total Credit Hours: 18		Semester: Spring Total Credit Hours: 12	
MATH 3470 Intro to Probability & Statistics	3	ECE 3920 Professional Issues in ECE	1
ECE 3130 Microcomputer Systems	4	ECE 3510 Electromagnetic Fields I	3
ME 2330 Dynamics	3	ME 3610 Dynamics of Machinery	3
ECE 3330 Signals & Systems	4	ECE 3210 Control Systems Analysis	3
PHYS 2120 Calculus-based Physics II	4	ECE 3260 Control Systems Lab	1
		ECE 3270 Programmable Logic Controller Lab	1
Course	**Cr. Hrs.**	**Course**	**Cr. Hrs.**
SENIOR YEAR			
Semester: Fall Total Credit Hours: 15		Semester: Spring Total Credit Hours: 14	
ECE 4961 Capstone Design I	3	ECE 4971 Capstone Design II	3
ECE 4050 Circuits & Electronics III	3	EE Mechatronics Concentration Elective[1]	3
ME 4140 Intro to Robotics & Intelligent Mach Engr	3	EE Mechatronics Concentration Elective[1]	3
Social/Behavioral Science Elective	3	Social/Behavioral Science Elective	3
Humanities/Fine Arts Elective	3	Free Elective	2

Notes:

A detailed list of electives is available: https://www.tntech.edu/engineering/programs/ece/undergraduate/electives-22.php

1. EE Mechatronics Concentration Electives: ECE 3610, ECE 3660, ECE 4010, ECE 4140, ECE 4210, ECE 4630, ME 4640, VE 3500.