Degree: Bachelor of Science

Major Requirements

Effective: Fall 2023

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ENGINEERING DEPARTMENT Central Connecticut State University

1615 Stanley St., New Britain, CT 06050 Tel: (860) 832-1815 Web: www.ccsu.edu/engineering/

Email: DeptofEngineering@ccsu.edu

General Education Study Areas:			
I. Arts and Humanities (9 credits) ¹			
	Literature (200 level or higher)	3	
	PHIL or Fine Arts	3	
	Literature or PHIL or Fine Arts	3	

II. Social Sciences (6 credits)

History	3
ET 399 (or ECON or GEOG or HIST or POL. SCI.)	3

III. Behavioral Sciences (3 credits)

Anthropology or Psychology or Sociology	3

IV. Natural Sciences (8 credits)

PHYS 121 - Gen Physics or PHYS 125 - Univ Physics I	4
PHYS 122 - Gen Physics or PHYS 126 - Univ Physics II	4

General Education Skill Areas:

I. Communication Skills (6 credits)			
	WRT 110 - Intro to College Writing ²	3	
	ENGR 290 - Engr Tech Writing & Presentation	3	

II. Mathematics (6 or 8 credits)²

MATH 135 - Applied Engr. Calculus I or MATH 152 - Calc I	3 or 4
MATH 136 - Applied Engr. Calculus II or MATH 221 - Calc II	3 or 4

III. Foreign Language Proficiency (0-6 credits)³

2 or 3

IV. University Requirement (2-3 credits)

PE 144-Fitness/Wellness (or appropriate transfer credit⁴)

International Requirement (6 credits)⁵

Equity, Justice, and Inclusion Requirement (3 credits)⁶

Major Requirements:				56	m.
			Crs	F	S
	ENGR 150	Introduction to Engineering	3	Х	Х
	ME 216	Manufacturing Engineering Processes	2	Х	Х
	ME 217	Manufacturing Engineering Processes Lab	1	Х	Х
	ET 251	Applied Mechanics I (Statics)	3	Х	Х
	ET 252	Applied Mechanics II (Dynamics)	3	Х	Х
	ET 354	Applied Fluid Mechanics	3	Х	Х
	ET 357	Strength of Materials	3	Х	Х
	ET 361	Engineering Technology Instrumentation	3	Х	Х
	ET 399	Engineering Economy	3	Х	Х
	ETM 260	Computer Aided Design & Integrated Manufacturing	3	Х	Х
	ETM 340	Geometric Dimensioning and Tolerancing [I]	3	Х	Х
	ETM 356	Materials Analysis	3	Х	Х
	ETM 358	Applied Thermodynamics	3	Х	Х
	ETM 367	Machine Design	3	Х	Х
	ETM 454	Applied Heat Transfer	3		Х
	ETM 462	Manufacturing Process Planning and Estimating	3	Х	Х
	ETM 464	CAD Solid Modeling and Design	3	Х	Х
	ETM 466	Design for Manufacture	3	Х	Х
	ETM 467	Applied Finite Element Analysis	3	Х	Х
	ETM 497	Engineering Technology Senior Project Research	2	Х	Х
	ETM 498	Engineering Technology Senior Project (Capstone)	2	Х	Х

Directed Technical Electives:

Student chooses from courses such as ET 495; ETM 360; ETM 461; ETM 463;	8 to 12	Х	Х
MM 226; MM 236; ENGR 392; ENGR 490; ROBO 420; TM 390; TM 464			

Additional Requirements:

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MM 121	Mechanical CAD		3	Х	Х
CET 236	Circuit Analysis		3	Х	Х
CHEM 161	General Chemistry		3	Х	Х
CHEM 162	General Chemistry - LAB	General Chemistry - LAB			Х
ENGR 240	Computational Methods for Engineering		3	Х	Х
MATH 119 ⁷	Pre-Calculus with Trigonometry		4	Х	Х
STAT 104	Elementary Statistics		3	Х	Х
-		TOTAL CREDITS	130		

Minimum grade of C- required in all courses in the major, all additional requirements, and all courses in Study Area IV, Skill Area I, and Skill Area II.

¹ For Study Area I, no more than 6 credits from any one discipline.

² Placement examination may be required before enrolling in initial English and Mathematics courses. Contact CCSU's Learning Center.

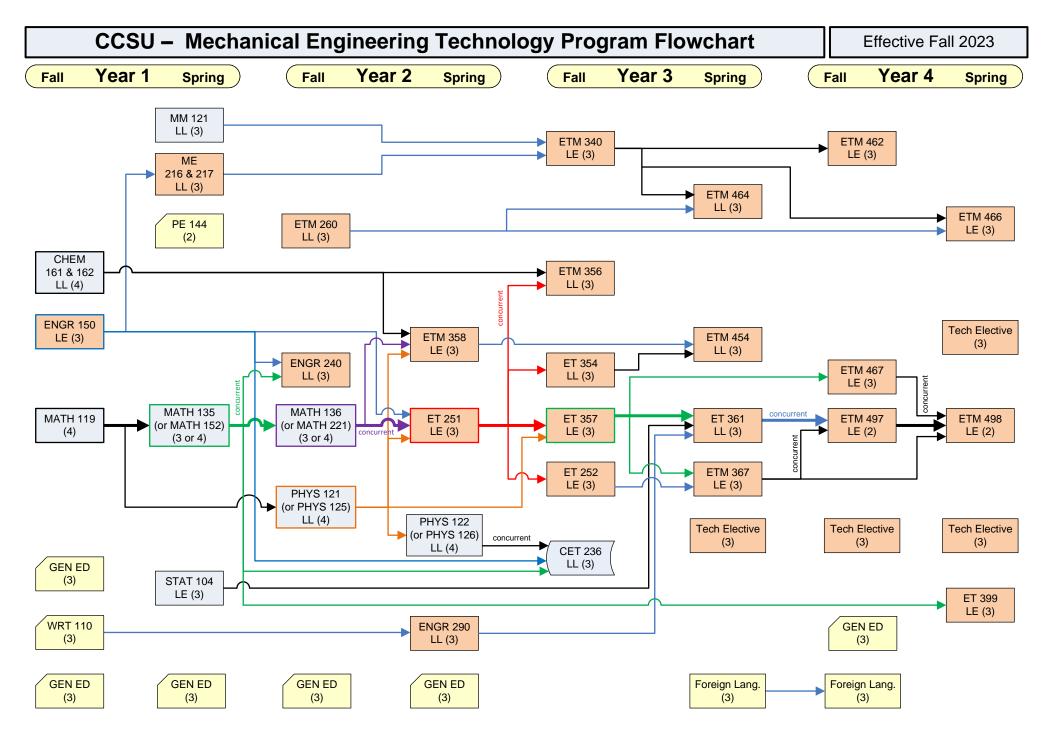
³ Refer to the University Catalog, Undergraduate General Education Program, for Foreign Language proficiency requirements.

⁴ Transfers entering with 15 or more credits may fulfill this requirement with 2 or 3 additional credits from any of the four general education skill areas, or with ENGR 150 or other courses listed under "Skill Area IV. University Requirement" in the University Catalog.

⁵ Courses with the International designation can be double-counted to fulfill the International Requirement. Note that the required course ETM 340 fulfills 3 credits of the 6-credit International Requirement.

⁶ Courses with the EJI designation can be double-counted to fulfill the Equity, Justice, and Inclusion Requirement.

⁷ MATH 116 (3 credit PreCalc) is acceptable but then Calc I will also require MATH 115 as a prereq. MATH 115 credits do not apply towards the degree. Refer to the online University Catalog for additional information.



Bold lines represent the critical path. The word "concurrent" indicates that two courses may be taken in the same semester.