

Mechanical Engineering - Bachelor of Science

Central Connecticut State University - Department of Engineering

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Department Chair

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General Education	Minimum Credit Hours	40
STUDY AREAS:		
I Arts & Humanities¹		Crd
Literature (200 Level or higher)	3	
PHIL or Fine Arts	3	
Literature or PHIL or Fine Arts	3	
II Social Sciences²		
History	3	
ECON or GEOG or HIST or POL. SCI. or ET 399	3	
III Behavioral Sciences³		
Anthropology or Psychology or Sociology	3	
IV Natural Sciences (8 credits)		
PHYS 125-Univ Physics I	4	
PHYS 126-Univ Physics II	4	
SKILL AREAS:		
I Communication Skills		
WRT 110 Introduction to College Writing	3	
ENGR 290-Engineering Technical Writing & Present (S/F)	3	
II Mathematics⁴		
MATH 152-Calculus I	4	
MATH 221- Calculus II	4	
III Foreign Language⁵		0-6
IV University Requirements⁶		
PE 144 College Wellness	2 or 3	

International Requirement ⁷	6
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Equity, Justice, and Inclusion Requirement ⁸	3
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† ME 458 (F) or ME 459 (S)
†† ME 340 or ME 360 or ME 403 or ME 452 or ME 460 or ME 461 or ME 463 or ME 465 or ME 466 or ME 470 or ME 480 or ME 483 or ME 485 or ME 486 or ME 487 or ME 488.
††† ME 340 or ME 360 or ME 403 or ME 452 or ME 460 or ME 461 or ME 463 or ME 465 or ME 466 or ME 470 or ME 480 or ME 483 or ME 485 or ME 486 or ME 487 or ME 488 r ENGR 490 or ETM 340 or ETM 360 or ETM 461 or ETM 464 or ETM 466 or ET 399 or ET 495 or MM 226 or TM 464.
†††† ME 461 (S) or ME 466 (F)

Major Requirements	Total Credit Hours	47			
Course #	Course Name	Crd	F	S	
ENGR 150	Introduction to Engineering ⁹	3	X	X	
ENGR 251	Engineering Mechanics I- Statics	3	X	X	
ENGR 252	Engineering Mechanics II - Dynamics	3	X	X	
ENGR 357	Mechanics of Materials	3	X	X	
ME 216	Manufacturing Engineering Processes	2	X	X	
ME 217	Manufacturing Engineering Processes Lab	1	X	X	
ME 258	Engineering Thermodynamics	3	X	X	
ME 345	Engineering Statistical Analysis of Operations	3	X	X	
ME 352	Modeling and Control of Dynamic Systems	3	X	X	
ME 354	Fluid Mechanics	3	X	X	
ME 367	Machine Design I	3	X	X	
ME 368	Machine Design II	3	X	X	
ME 370	Instrumentation	3	X	X	
ME 454	Heat Transfer	3	X	X	
ME 467	Finite Element Analysis with Applications	3	X	X	
ME 497	Senior Project I: Project Research	2	X	X	
ME 498	Senior Project II: Project Design	3	X	X	
Concentration Areas		Total Credit Hours	12		
General Concentration (All four courses in this group)					
General	†	ME Elective 1	3	X	X
	††	ME Elective 2	3	X	X
	†††	ME Elective 3	3	X	X
	††††	Technical Elective	3	X	X
Aerospace Concentration (ALL four Courses in this group)					
Aerospace	ME 403	Aerospace Control Systems	3	X	
	ME 480	Propulsion Systems	3	X	
	ME 483	Aerodynamics	3		X
	ME 486	Aerospace Structures and Materials	3		X
Manufacturing Concentration (All four courses in this group)					
Manufacturing	ME 340	Geometric Dimensioning & Tolerancing for Mechanical D	3	X	X
	ME 360	Manufacturing Operations Analysis and Simulation	3	X	
	ME 460	Manufacturing System Design	3		X
	††††	Manufacturing Engineering Elective	3	X	X
Additional Requirements		Total Credit Hours	29		
CET 236	Circuit Analysis	3	X	X	
ETM 260	Comp. Aided Design & Integrated Manuf.	3	X	X	
ETM 356	Materials Analysis	3	X	X	
ENGR 392	Engineering Practicum (400 hours)	1	X	X	
ENGR 240	Computational Methods for Engineering	3	X	X	
CHEM 161	General Chemistry	3	X	X	
CHEM 162	General Chemistry Laboratory	1	X	X	
MATH 222	Calculus III	4	X	X	
MATH 226	Linear Algebra and Probability for Engineers	4	X	X	
MATH 355	Introduction to Differential Equations	4	X	X	
Total Number of Credits		128			

1 [Study Area I Choices Link](#)

2 [Study Area 2 Choices Link](#)

3 [Study Area 3 Choices Link](#)

4 [Math Requirements Link](#)

5 [Foreign Language Requirements Link](#)

6 [Study Area IV Requirements Link](#)

7 [International Requirements Link](#)

8 [Equity, Justice and Inclusions Requirements Link](#)

9 MATH 115 or MATH 119 or MATH 135 or MATH 152 (May be taken Concurrently)

CCSU – Department of Engineering – Mechanical Engineering Program Flowchart

Updated Fall 2023

