

Civil Engineering

Bachelor of Science

Effective: Fall 2022

<https://www.ccsu.edu/engineering/programs/civilEngineeringBS.html>

Department of Engineering

Central Connecticut State University

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General Education Study Areas (26 credits):

I. Arts and Humanities ¹		Crs
Literature (200 level or higher)		3
PHIL or Fine Arts		3
Literature or PHIL or Fine Arts		3

II. Social Sciences ²

History		3
ECON or ET 399 - Engineering Economy ^(Preferred)		3

III. Behavioral Sciences

Anthropology or Psychology or Sociology		3
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IV. Natural Sciences

PHYS 125 - Univ Physics I		4
PHYS 126 - Univ Physics II		4

General Education Skill Areas (16 to 23 credits):

I. Communication Skills

WRT 110 - Intro. to College Writing		3
ENGR 290 - Engr Tech Writing & Presentation		3

II. Mathematics

MATH 152 - Calculus I		4
MATH 221 - Calculus II		4

III. Foreign Language Proficiency ³

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IV. University Requirement

PE 144 - College Wellness ⁴		2 or 3
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International Requirement (6 credits) ⁵

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

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

¹ For Study Area I, no more than 6 credits in any one subject area are allowed. 3 of the credits must be in a literature course (200 level or higher).

² For Study Area II, at least 3 credits must be in history.

³ Refer to the "Skill Area III. Foreign Language Proficiency" in the University Catalog.

⁴ Transfers entering with 15 or more credits may complete this requirement with 2 or 3 additional credits from ENGR 150 or other courses listed under "Skill Area IV. University Requirement" in the University Catalog.

⁵ General Education courses with designator [I] in the course description fulfill the International requirement.

⁶ CE 460 is an EJI designated course; transfer students with 50 or more credits can waive the EJI requirement.

⁷ BIO 121, or BMS 102 & 103, or GSCI 121 & 125; the Additional Science Elective must include a laboratory.

⁸ Recommended CE Dir. Tech. Electives: CE 357(3), CE 402(1), CE 458(3), CE 472(3), CE 473(3), CE 474(3), CE 477(3), CE 490(2), CE 491(1), and CE 495(3); the CE Dir. Tech. Electives must be 6 or more credits.

Major Requirements (64 credits):

			Sem.		
			Crs	F	S
ENGR 150	Introduction to Engineering	3	X	X	
ENGR 240	Spreadsheet & Prob. Solv. Tools w/Lab	3	X	X	
ENGR 251	Engr. Mech. I - Statics	3	X	X	
ENGR 252	Engr. Mech. II - Dynamics	3	X	X	
ENGR 357	Mechanics of Materials	3	X	X	
CE 222	CAD Applications in CE w/Lab	2	X	X	
CE 253	Intro. to Engr. Surveying w/Lab	3	X		
CE 354	Fluid Mechanics for CE w/Lab	3	X	X	
CE 356	Civil Engr. Materials w/Lab	3	X	X	
CE 360	Traffic Engineering w/Lab	3	X		
CE 375	Hydraulic Engineering	3	X	X	
CE 376	Environmental Engineering	3	X		
CE 397	Structural Analysis I	3	X	X	
CE 407	Structural Analysis II	3		X	
CE 451	Soil Mechanics w/Lab.	3		X	
CE 452	Foundation Engineering	3	X		
CE 460	Highway Design and Construction	3		X	
CE 470	Structural Steel Design	3	X		
CE 471	Reinforced Concrete Structures	3		X	
CE 475	Hydrology and Storm Drainage w/Lab	3	X		
CE 497	Prof. Practice & Sr. Project Research	2	X		
CE 498	Senior Design Project (Capstone)	3		X	

Additional Requirements (22 credits):

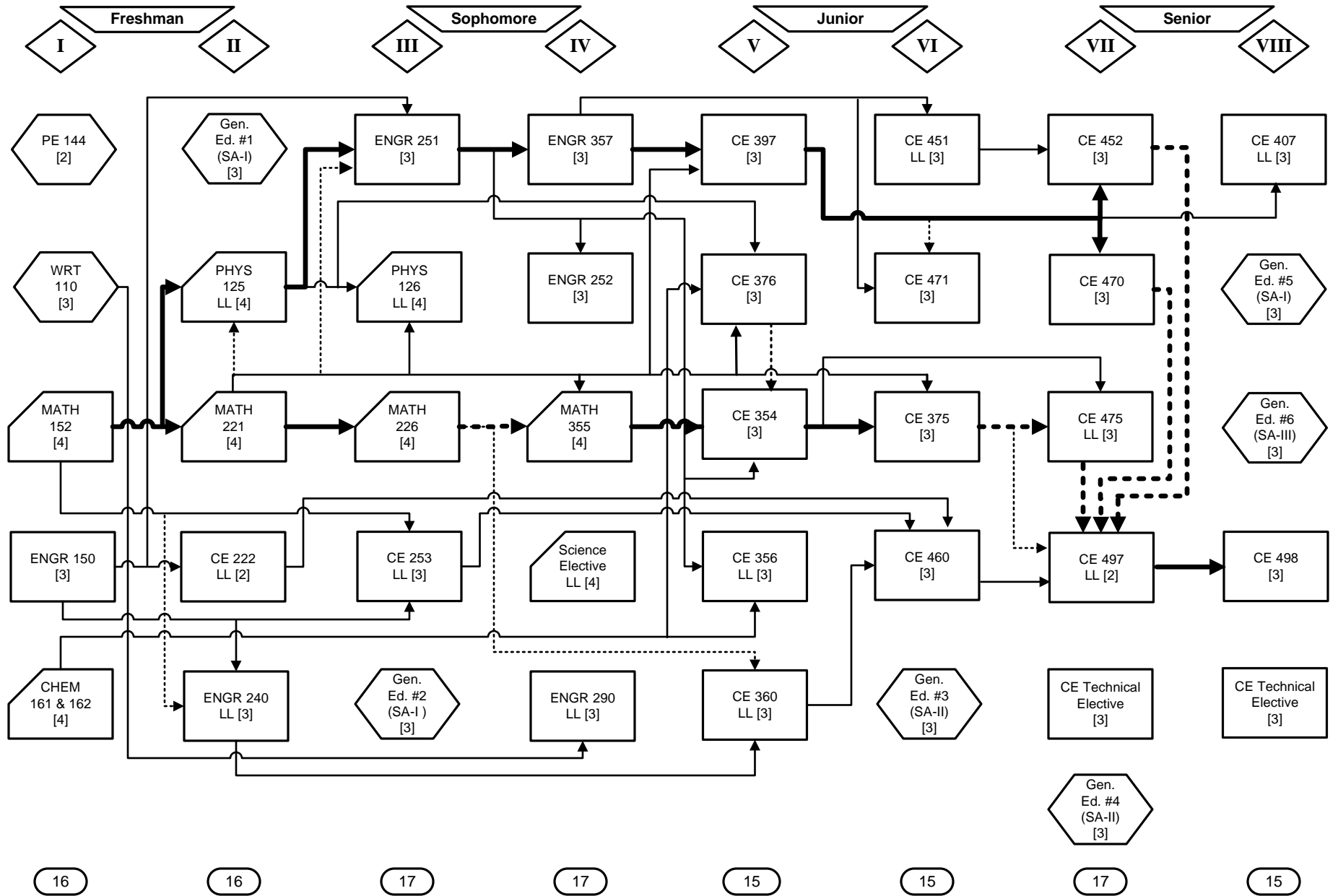
			Crs	F	S
CHEM 161	General Chemistry	3	X	X	
CHEM 162	General Chemistry Lab.	1	X	X	
MATH 226	Linear Algebra and Prob. for Engr.	4	X	X	
MATH 355	Intro. to Differential Equations w/ Applications	4	X	X	
BIO/GSCI/BMS	Additional Science Elective w/Lab ⁷	4	X	X	
	CE Directed Technical Elective ⁸	3	X		
	CE Directed Technical Elective ⁸	3		X	

TOTAL CREDITS = 128

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CCSU – Dept. of Engineering – Civil Engineering Program Flowchart

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-----> May be taken concurrently
 —————> C- or higher
 —————> Critical path