Civil Engineering

Bachelor of Science Effective: Fall 2024

https://www.ccsu.edu/programs/civil-engineering-bs/curriculum-civil-engineering-bs

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

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]

		0 - 6

IV. University Requirement

	PE 144 - College Wellness [4]	2 or 3

International Requirement (6 credits) [5]

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

Major Requirements (64 credits):

			Crs	Sem. F	Sem. 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	X
	CE 354	Fluid Mechanics for CE	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	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**		

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.

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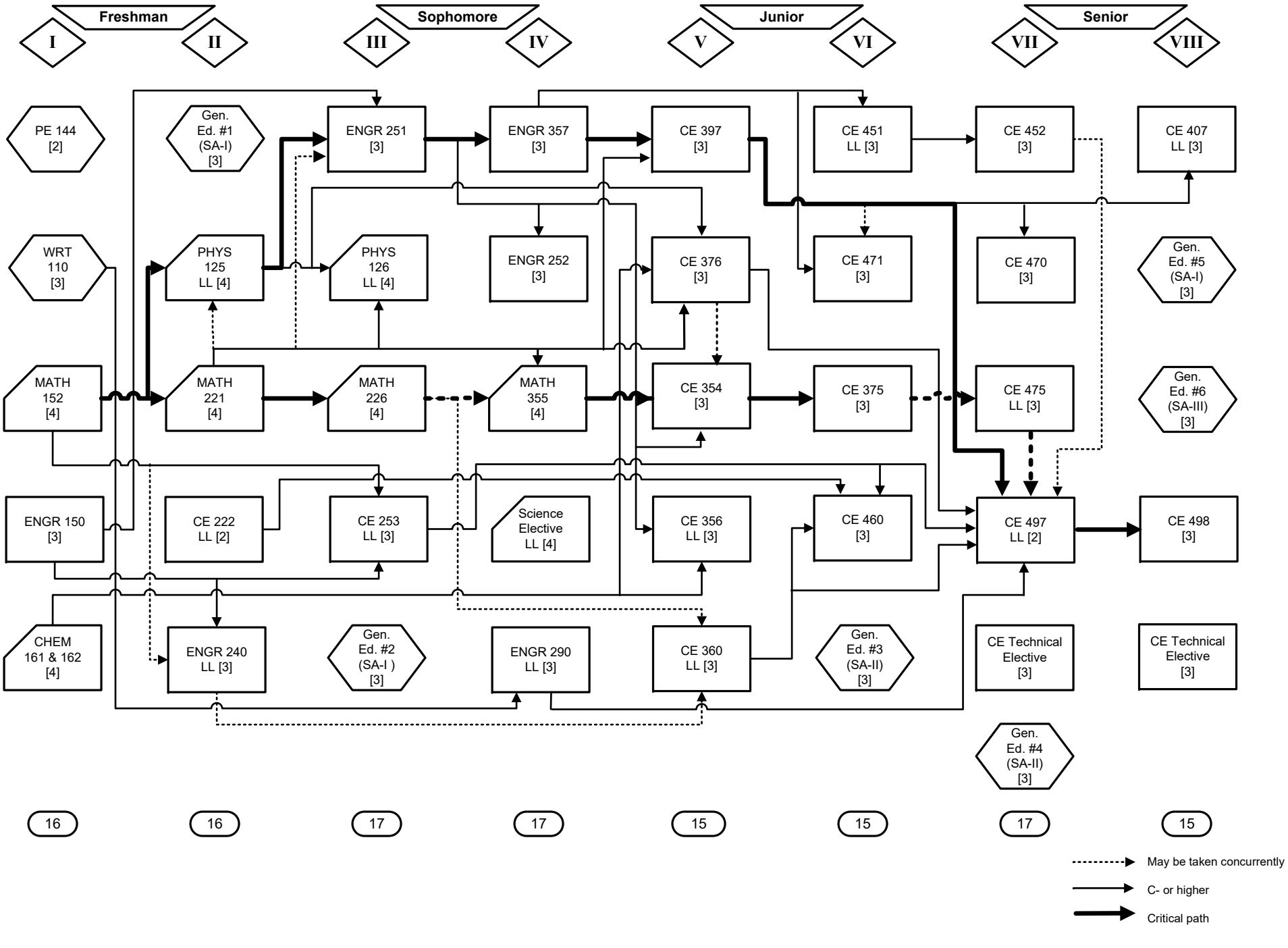
CCSU – Dept. of Engineering – Civil Engineering Program Flowchart

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