

# CENTRAL CONNECTICUT STATE UNIVERSITY

## FOUR-YEAR ACADEMIC MAP

- Checkpoint:** The ideal time for completing a particular requirement (recommended).
- Warning:** This indicates that a milestone will soon be approaching (could delay graduation).
- Milestone:** A program or degree requirement that must be completed by this specific time in order to graduate in 4 years and/or continue in the major/program (required, cannot proceed)





Effective Term Fall 2011  
Civil Engineering





Semester 1	Cr.	Min. Gr.	Milestones
ENGR 150 Introduction to Engineering	3	C-	Pre-calculus and Trigonometry are prerequisites for MATH 152. First year students need Math SAT 600+, and take FYE section of ENGR 150. Students who do not take CHEM 161/162 in Semester 1 will need to take the course concurrently with PHYS 125 or PHYS 126. MATH 152 (C- or >) is a prerequisite for MATH 221, PHYS 125 and CE 253. ENGR 150 (C- or >) is a prerequisite for ENGR 240. Complete MATH 152 (C- or >) in Semester 1 to complete CE program by Semester 8.
CHEM 161 General Chemistry I	3	C-	
CHEM 162 Gen. Chemistry I Laboratory	1	C-	
MATH 152 Calculus I	4	C-	
ENG 110 Freshman Composition	3	C-	
PE 144 Fitness and Wellness	2		
<b>TOTAL</b>	<b>16</b>		

Semester 2	Cr.	Min. Gr.	Milestones
MATH 221 Calculus II	4	C-	MATH 221 (C- or >) is a prerequisite for MATH 226 and a co-requisite for ENGR 251 (in Semester 3). PHYS 125 (C- or >) is a prerequisite for ENGR 251 (in Semester 3) and ME 258 (in Semester 4). Gen Ed Study Area II requires history and economics (ET 399 preferred). Other Study Area II courses cannot be applied to the CE program. Complete MATH 221 (C- or >), PHYS 125 (C- or >), and ENGR 150 (C- or >) by end of Semester 2 to complete CE program by Semester 8.
PHYS 125 University Physics I	4	C-	
ENGR 240 Spreadsheet & Engr. Solv. Tools	3	C-	
ETC 122 Intro.to CAD for AEC	3	C-	
General Education (#1)	3		
<b>TOTAL</b>	<b>17</b>		





Semester 3	Cr.	Min. Gr.	Milestones
MATH 226 Linear Algebra & Probability	4	C-	MATH 226 (C- or >) is a prerequisite for MATH 355. ENGR 251 (C- or >) is a prerequisite for ENGR 252 and ENGR 257 (in Semester 4). CE 253 is only offered in Fall semesters. For normal degree progress, complete CE 253 by end of Semester 3. ENGR 240 is a prerequisite for ENGR 252 in Semester 4. Complete MATH 226 (C- or >), ENGR 251 (C- or >) and CHEM 161/162 by end of Semester 3 to complete CE program by Semester 8.
PHYS 126 University Physics II	4	C-	
ENGR 251 Engr. Mechanics I - Statics	3	C-	
CE 253 Intro. to Engineering Surveying	3	C-	
ENGR 290 Engr. Tech. Writing & Presentat.	3	C-	
<b>TOTAL</b>	<b>17</b>		





Semester 4	Cr.	Min. Gr.	Milestones
MATH 355 Intro. to Differential Equations	4	C-	ENGR 251 (C- or >), ME 258 (C- or >), and MATH 355 are prerequisites for ME 354 (in Semester 5). MATH 221 (C- or >) and ENGR 257 (C- or >) are prerequisites for CE 397 (in Semester 5). For normal degree progress, complete PHYS 126, ENGR 240, ENGR 252, ENGR 290, and CE 458 by end of Semester 4. Complete MATH 355, ME 258 (C- or >), and ENGR 257 (C- or >) by end of Semester 4 to complete CE program by Semester 8.
ENGR 252 Engr. Mechanics II - Dynamics	3	C-	
ENGR 257 Mechanics of Materials	3	C-	
ME 258 Thermodynamics	3	C-	
CE 458 GPS Mapping (or CE 357 when offered)	3	C-	
<b>TOTAL</b>	<b>16</b>		

Semester 5		Cr.	Min. Gr.	Milestones
ME 354	Fluid Mechanics	3	C-	 ME 354 (C- or >) is a prerequisite for CE 375 and CE 451 (in Semester 6). MATH 226 and CE 253 are prerequisites for CE 454 (in Semester 6).  CE 397 is a prerequisite for CE 471 (in Semester 6), CE 470 (in Semester 7), and CE 497 (in Semester 7).  ME 354 and CE 397 are offered only in Fall semesters. CE students take one Study Area III course; additional Study Area III courses are not applied.  Complete ME 354 (C- or >) and CE 397 (C- or >) in Semester 5 to complete CE program by Semester 8.
CE 397	Structural Analysis	3	C-	
Science Elective: BIO 121, BMS 102/103 or ESCI 121		4	C-	
ETM 356	Mat. Analysis (or CM 356)	3 or 4	C-	
General Education (#2)		3		
<b>TOTAL</b>		<b>16 or 17</b>		

Semester 6		Cr.	Min. Gr.	Milestones
CE 375	Hydraulic Engineering	3	C-	 CE 375 (C- or >) is a prerequisite for CE 475 and CE 497 (in Semester 7).  For normal degree progress, complete CE 451, CE 454, CE 471, CET 236, and ETM 356 (or CM 356) by end of Semester 6.  CE 375, CE 451, CE 454 & CE 471 are offered only in Spring semesters.  Complete CE 375 (C- or >) in Semester 6 to complete CE program by Semester 8.
CE 451	Soil Mech. & Foundations w/Lab	4	C-	
CE 454	Intro. to Transportation Engr.	3	C-	
CE 471	Reinforced Conc. Structures	3	C-	
CET 236	Circuit Analysis	3	C-	
<b>TOTAL</b>		<b>16</b>		

 **Completion of CE 253, CE 375, CE 397 & Sr. standing is required to begin the 2- semester Sr. Design Project.** 

Semester 7		Cr.	Min. Gr.	Milestones
CE 470	Structural Steel Design	3	C-	 CE 497 (C+ or >) is a prerequisite for CE 498 (in Semester 8).  For normal degree progress, complete ET 399, and one Dir. Tech. Elective by end of Semester 7.  CE 497 students must register for NCEES FE Exam by Dec 1 of Fall semester. ENGR 490 is a suggested Dir. Tech. Elective in Semester 7.  Complete CE 470, CE 475 and CE 497 in Semester 7 to complete CE program by Semester 8.
CE 475	Hydrology & Storm Drainage	3	C-	
CE 497	Prof. Practice & Sr. Proj. Research	2	C-	
ET 399	Engineering Economy (in Study Area II)	3	C-	
Civil Engr. Dir. Technical Elective		3	C-	
General Education (#3)		3		
<b>TOTAL</b>		<b>17</b>		

Semester 8		Cr.	Min. Gr.	Milestones
CE 476	Environmental Engineering	3	C-	 Students must also complete CCSU International courses (6 cr) and foreign language requirements.  Students who complete MATH 222 in addition to other mathematics requirements may be eligible for a Minor in Mathematics.  CE Dir. Tech. Electives include: CE 472, ENGR 490, ET 495 (Engr. Topics) & MATH 222.  CE 498 students must take the NCEES FE exam in the Spring semester. There is a CT and NCEES fee for this exam.
CE 498	Senior Design Project (Capstone)	2	C-	
Civil Engr. Dir. Technical Elective		3	C-	
General Education (#4)		3		
General Education (#5)		3		
<b>TOTAL</b>		<b>14</b>		

**TOTAL 130**

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