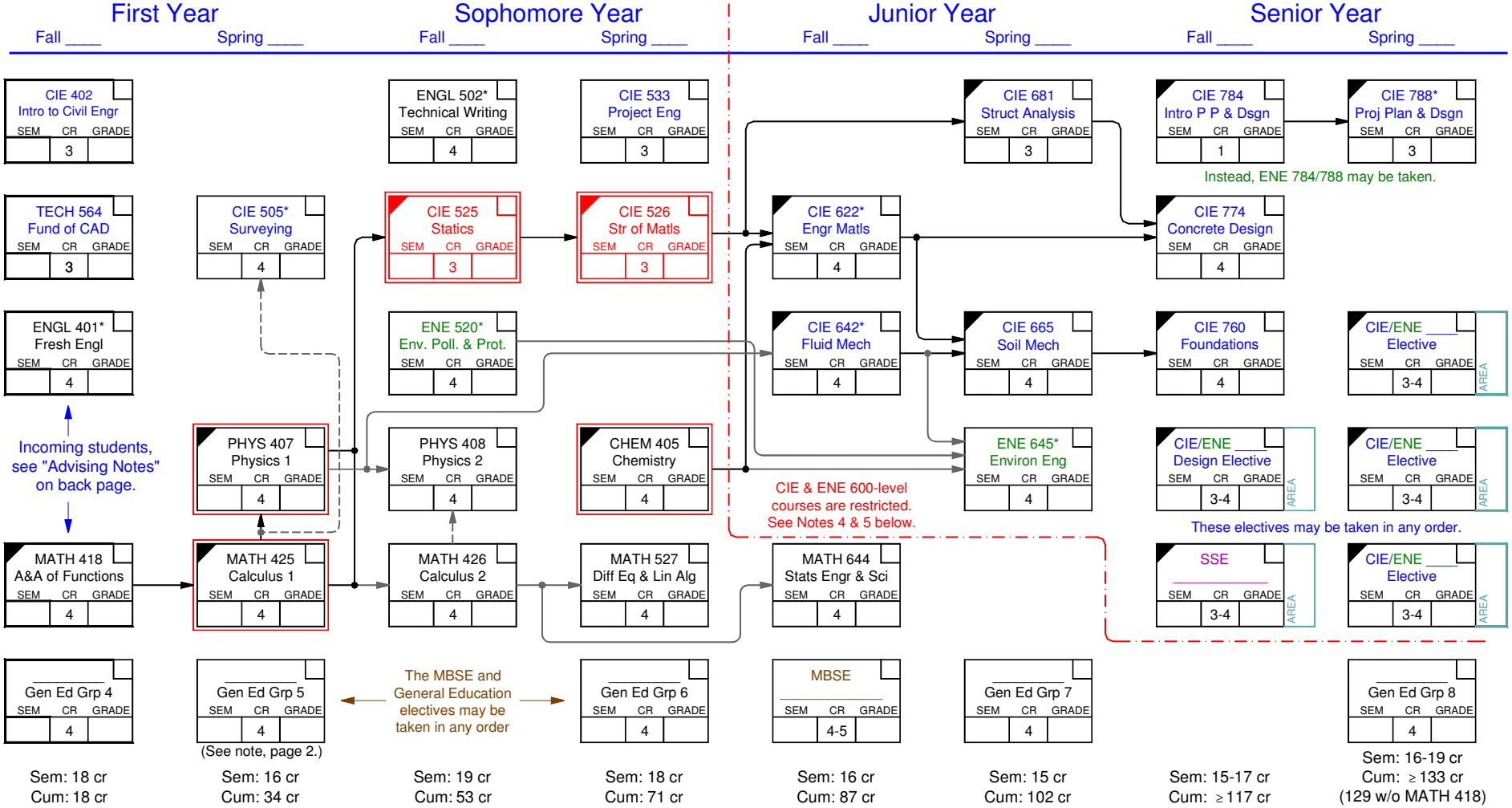

Student:

(Continuous line = prerequisite, dashed line = pre- or corequisite, * = "writing-intensive", solid corner triangle & black arrows = critical path)

General Education Requirements

- 1: ENGL 401 ☐
- 2: MATH 425 ☐
- 3PS: PHYS 407 & 408 ☐ ☐
- 3T: ENE 520 ☐
- 4: Historical Perspectives ☐
- 5: Foreign Culture ☐
- 6: Fine Arts ☐
- 7: Social Science ☐
- 8: Literature and Philosophy ☐

Notes (Applicable to BSCE majors in the Department of Civil Engineering)

1. Students are allowed a maximum of two consecutive semesters with a semester GPA below 2.00.
2. Students are allowed a maximum of any two semesters with a semester GPA below 2.00 in CIE and ENE courses.
3. BSCE students may repeat a maximum of two different CIE or ENE courses. (Each may be repeated multiple times.)
4. Students must take all double-boxed courses and the GPA of the five must be ≥ 2.00 to take CIE and ENE 600-level courses.
5. Students must get a grade of C or better in both CIE 525 and CIE 526 to take CIE and ENE 600-level courses.
6. Exchange requires cum. GPA in MATH/PHYS/CHEM/CIE/ENE courses ≥ 3.00, 2nd & 3rd semester prior to exchange.
7. A maximum of three of the five SSE and CIE/ENE electives may be taken in any one civil engineering concentration.
8. Students must earn at least 129 cr with a minimum 2.00 GPA in CIE and ENE courses and a 2.00 overall to graduate.

ADVISING NOTES

No MATH 418—Incoming students without AP credit should attempt to place into MATH 425. If successful, move the math sequence up one semester.

AP Math—A 4 on the AB exam or a 3 on the BC exam gives credit for MATH 425. Students may choose to take 425 anyway. With a 5 on the AB exam, students should use the AP credit and start with MATH 426. With a 4 on the BC exam, the student also gets credit for 426 but may choose to take 426 anyway. With a 5 on the BC exam, the student should use the AP credits and start with MATH 527 or 644.

Math Minor—Students interested in a mathematics minor should take MATH 525 in place of MATH 527 and MATH 526 as the MBSE. Consult with the Mathematics and Statistics Department.

Chemistry—Incoming students without high school chemistry should take CHEM 403 and 404 in their first year, postponing electives as necessary. The CHEM 403 grade is used instead of the CHEM 405 grade for double-box criteria. CHEM 404 then serves as the MBSE.

AP Chemistry—Students with AP credit equivalent to CHEM 403 should take CHEM 404 as their MBSE at their earliest convenience.

International Affairs Dual Major—Incoming students interested in this dual major should begin or continue language courses in French, German, Greek, Italian, Russian, or Spanish and the Gen. Ed. electives should be delayed. See the separate IA/CIE curriculum worksheet.

Group 5 Gen. Ed.—Students that study abroad do not have to take a Group 5 Gen. Ed. Therefore, it is recommended that the Group 5 Gen. Ed. be one of the last Gen. Ed. electives taken.

Mechanics Sequence—ME 525 and 526 may be taken instead of CIE 525 and 526.

Electives and Double-Counting—A course taken as the MBSE cannot also count as satisfying a General Education elective.

Senior Electives—A maximum of three of the five electives may be taken in any one civil engineering concentration. Concentrations are indicated by the shaded boxes in the table to the right.

Table Notes

*A writing intensive course.

† Senior Science Elective

‡ Including ENE 795 Independent Study, ENE 797 Special Topics, CIE 795 Independent Study, and CIE 796 Special Topics providing that the course is taken for at least 3 cr.

§ This course has a corequisite or prerequisite courses which must be taken as an elective. As such, early planning may be required to enable the student to take this course.

ELECTIVES AND RECOMMENDATIONS FOR CONCENTRATIONS

				Struct	Geo	Matls	Water	Env
Math and Basic Sciences Elective, MBSE	BIOL 411	Principles of Biology I	4 cr					
	CHEM 404	General Chemistry	4 cr					
	545/546	Organic Chemistry Lecture/Lab	5 cr					✓
	CS 410	Intro to Scientific Programming	4 cr	✓				✓
	ESCI 401	Principles of Geology	4 cr	✓	✓	✓	✓	✓
	402	Earth History	4 cr		✓			
	405	Global Environmental Change	4 cr				✓	✓
	409	Environmental Geology	4 cr		✓		✓	✓
	501	Introduction to Oceanography	4 cr				✓	✓
	GEOG 473	Elements of Weather	4 cr	✓			✓	
	MATH 526	Linearity II	6 cr	✓				
	528	Multi-dimensional Calculus	4 cr	✓				✓
	645	Linear Algebra for Applications	4 cr	✓				✓
	MICR 501	Microbes in Human Disease	4 cr					✓
	NR 433	Wildlife Ecology	4 cr					✓
	504	Freshwater Resources	4 cr				✓	✓
	PBIO 405	Organic and Sustainable Food Prod.	4 cr					✓
	412	Introductory Botany	4 cr					
	ZOOL 401	Human Biology	4 cr					
	412	Biology of Animals	4 cr					✓
SSE†	CIE/ENE	Any 700-level course, 3 cr or more‡	3-4 cr					
	Other CEPS	Any 700-level course, 3 cr or more	3-4 cr					
	OE	Any 700-level course, 3 cr or more	3-4 cr					
	NR 757	Photo Interp & Photogrammetry	4 cr		✓		✓	✓
CIE/ENE Design Elective	CIE 721	Pavement Design	3 cr		✓	✓		
	755	Design Press. Water Trans. Systems	4 cr				✓	✓
	758	Stormwater Management Designs	4 cr	✓			✓	
	759	Stream Restoration	3 cr				✓	
	761	Foundation Design II	3 cr		✓			
	782	Timber Design	3 cr	✓				
	791	Prestressed Concrete	3 cr	✓				
	792	LRFD Bridge Design§	3 cr	✓				
	793	Structural Design in Steel	3 cr	✓	✓			
	ENE 740	Public Health Engineering	3 cr				✓	✓
	744	Physicochemical Treat Design§	4 cr				✓	✓
	746	Bioenvironmental Engr Design*§	4 cr					✓
	748	Solid and Haz Waste Design*§	4 cr					✓
CIE/ENE Elective	CIE 722	Properties and Prod of Concrete	3 cr			✓		
	723	Bituminous Matls and Mixtures	3 cr			✓		
	741	Open Channel Flow	3 cr		✓		✓	✓
	745	Engineering Hydrology	3 cr		✓		✓	✓
	750	Ecohydrology§	3 cr				✓	✓
	754	Transportation Engr & Planning	3 cr	✓	✓	✓		
	757	Coastal Engr & Processes	3 cr		✓		✓	
	762	Intro to Geo Earthquake Engr	3 cr		✓			
	763	Geological Engineering	3 cr		✓			
	766	Intro to Geo-Environ. Engineering	3 cr		✓			✓
	778	Issues in Engr Practice & Mgmt	3 cr		✓			
	783	Matrix Struct Analysis & Modeling	3 cr	✓	✓	✓		
	785	Intro to Struct Vibrations§	3 cr	✓				
	786	Intro to Finite Element Analysis§	3 cr	✓	✓	✓		
	787	Dynamics of Structures§	3 cr	✓				
	ENE 709	Fund of Air Poll and Control	4 cr					✓
	742	Solid and Hazardous Waste Engr	3 cr		✓			✓
	743	Environ Sampling & Analysis*	4 cr				✓	✓
	747	Intro to Marine Poll & Control	4 cr				✓	✓
	749	Water Chemistry	4 cr				✓	✓
	752	Process Dynamics and Control	4 cr					✓
	756	Environ Engr Microbiology*	4 cr					✓
	772	Physiochemical Processes…	4 cr					✓