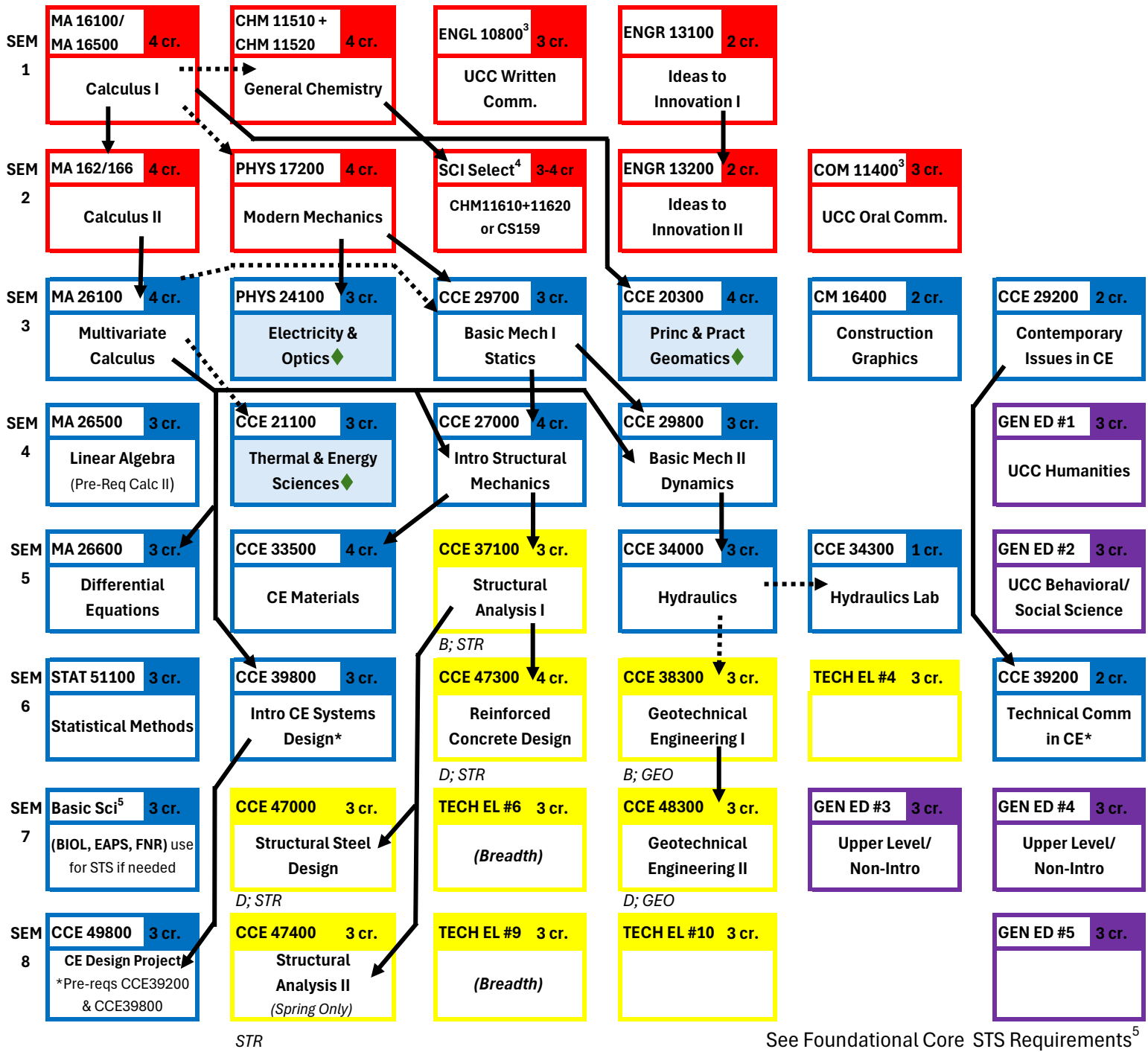


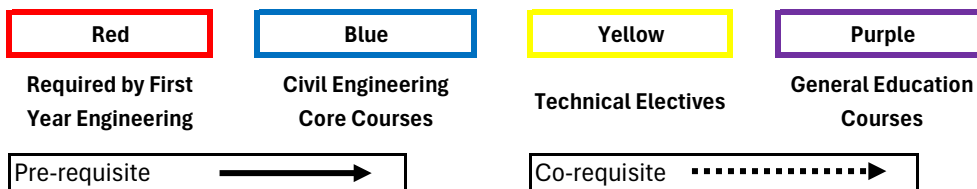
# Civil Engineering Curriculum Flowchart<sup>1,2</sup>

## STRUCTURAL Engineering Concentration (BSCE)

**Beginning  
Fall 2026**



**Legend:**



See the other side of this document for Curriculum Notes & other information.

◆ CE 20300/PHYS 24100 & 21100 can be interchanged between semesters 3 & 4 of sophomore year; PHYS 24100 available in summer  
*Italics: suggested Technical Electives listed on next page; total of 30 cr. Required*  
 130 credit hours required for BSCE degree

## Curriculum Notes:

1. This flowchart shows the standard BSCE course requirements and the typical sequencing of such courses, with area-specific guidance. **Some deviations, both in courses and sequencing, can occur; students should speak to their advisors in the CCE Undergraduate Office for further information.**
2. Students should consult the following LSCCE website for guidance on the requirements for Technical Electives and General Education Elective courses, respectively and the limitations on transfer credits:  
<https://engineering.purdue.edu/CCE/Academics/Undergraduate/Policies>. **The student is ultimately responsible for knowing and completing all BSCE degree requirements.**
3. **Communication Courses** - Written Communication (WCC) and Oral Communication (OCC) required for First Year Engineering are BSCE degree requirements that are separate from BSCE general education elective requirements.
4. The **Science Selective** strongly recommended by Civil Engr faculty is **CHM 11610 plus lab**. **Either CHM 11610 and 11620/30 or CS 15900 is accepted.** However, we prefer **CHM 11610 and 11620/30**, especially if you are interested in the environmental or water resources side of civil engineering, because CCE 35000 Intro to Environmental & Ecological Engr., a technical elective, requires CHM 11610 and lab as a pre-requisite. Students using another Science Selective such as BIOL 11000 to meet FYE requirements will still be required to take CHM 11610 and 11620/30 or CS 15900 to graduate in BSCE, but can use BIOL 11000 for the Basic Science Elective.
5. The **Basic Science Requirement** courses are chosen from an approved list. Examples include: BIOL 11000 or EAPS 10000\*, 10400\*, 11100, 12000\*, 12500\* & 22100. See advisor for current approved list. Choose starred \* courses to meet the Foundational Core STS (Science, Technology, & Society) if not satisfied by other general education courses.  
<https://www.purdue.edu/provost/students/s-initiatives/curriculum/courses.html>
6. The Civil Engr faculty recommend ECON 25100 as a Foundational Behavioral/Social Science (BSS) general education course.
7. **CCE 49800 CE Design Project** must be taken in a student's final semester before graduation. The only exception to this rule are students who plan to graduate during a summer session may take CCE 49800 during the prior spring semester.
8. To graduate, all students are required to complete thirty (30) technical credits, including four (4) breadth and three (3) design, a minimum of twenty-one (21) credits in Civil Engineering, and at least a minimum of two (2) technical elective sequences.
9. **Sequence Requirement:** A sequence is defined as a minimum of two (2) technical elective courses from a given BSCE emphasis area. Each student must complete at least two (2) such sequences of technical electives. Note that completing four (4) courses from a single BSCE area of emphasis does not meet this requirement; the emphasis areas must be distinct. Certain non-BSCE designated courses may be used in satisfying this requirement.

## Required for the Concentration: (19 cr.)

CCE 37100: Structural Analysis I (B; STR)

CCE 47300: Reinforced Concrete Design (D; STR)

CCE 38300: Geotechnical Engineering I (B; GEO)

CCE 47400: Structural Analysis II (STR)

CCE 47000: Structural Steel Design (D; STR)

CCE 48300: Geotechnical Engineering II (D; GEO)

## Suggestions for Technical Electives: (B = Breadth Courses; D = Design Courses)

CCE 22200: Life Cycle Engineering And Management Of Constructed Facilities (B; CON)

CCE 31100: Architectural Engineering (B; ARC)

CCE 32200: Project Control And Life Cycle Execution Of Constructed Facilities (CON)

CCE/EEE 35000: Introduction To Environmental And Ecological Engineering (B; ENV)

CCE 36100: Transportation Engineering (B & D; TRA)

CCE 44000: Urban Hydraulics (B & D; HYD)

CCE 57500: Experimental Methods In Structural Engineering (STR)

CCE 47900: Design of Building Components and Systems (D; STR)

CCE 57600: Advanced Reinforced Concrete Design (STR)

CCE 57000: Advanced Structural Mechanics (STR)

CCE 57700: Advanced Structural Steel Design (STR)

CCE 57100: Earthquake Engineering (STR)

CCE 57900: Structural Stability (STR)

CCE 57200: Prestressed Concrete Design (STR)

CCE 59500: Finite Elements In Elasticity (STR)

CCE 57300: Structural Dynamics (STR)