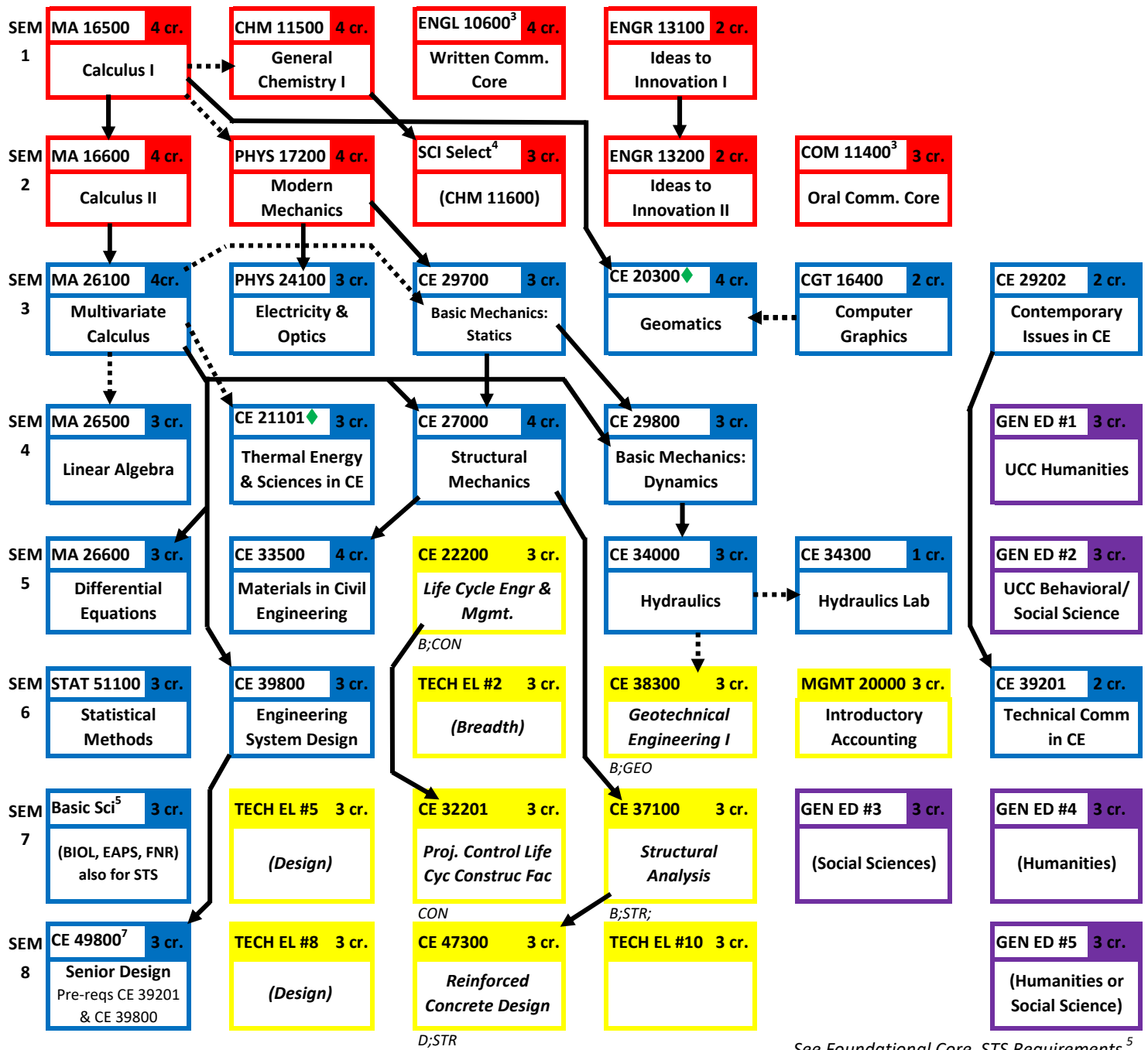


Civil Engineering Curriculum Flowchart^{1,2}

CONSTRUCTION Engineering Concentration

Beginning
Fall 2021



Legend:



◆ CE 20300 & 21101 can be interchanged between semesters 3 & 4 of sophomore year

Italics: suggested Technical Electives listed on next page; total of 30 cr. Required

130 credit hours required for BSCE degree

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

Curriculum Notes:

- 1 This flowchart show the standard CE course requirements and the typical sequencing of such courses. **Some deviations, both in courses and sequencing, can occur; students should speak to their advisors or the CE Undergraduate Office for further information.**
- 2 Students should consult the following CE 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/CE/Academics/Undergraduate/Current>
 *Click on the "Technical Elective Policy", the "General Education Policy", or the "Transfer Credit Policy" on the right side bar to see the .pdf documents. Students may also contact their faculty advisor or the CE Undergraduate Office for further information. In particular, it should be understood that the sequence shown for Technical Electives are listed below. **The student is ultimately responsible for knowing and completing all degree requirements.**
- 3 **Communication Courses** - for Written Communication (WC) ENGL 10600 or ENGL 10800 or SCLA 10100 or other from Written Communication Core list. For Oral Communication (CO) COM 11400 or SCLA 10200 or other from Oral Communication Core list satisfies the First Year Engineering general education requirement as well as the Oral Communication Foundational Outcome. The Lyles School of Civil Engineering, however, requires this course for graduation (subject to core policy rules) and does not consider it to be a general education course. Also refer to:
<https://www.purdue.edu/provost/students/s-initiatives/curriculum/courses.html>
- 4 The **Science Selective** strongly recommend by the School of Civil Engineering is CHM 11600. **Either CHM 11600 or CS 15900 is suggested.** However, we prefer CHM 11600, especially if you are interested in the environmental or water resources side of civil engineering, because CE 35000 Intro to Environmental & Ecological Engr., a technical elective, requires CHM 11600 as a pre-requisite. Students using another Science Selective such as BIOL 11000 to meet FYE requirements will still be required to take CHM 11600 or CS 15900 to graduate in Civil Engineering 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, 12100*, 14600, 23000, & 28600 or EAPS 10000*, 10400*, 11100, 12000*, & 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. Also refer to:
<https://www.purdue.edu/provost/students/s-initiatives/curriculum/courses.html>
- 6 The Lyles School of Civil Engineering faculty recommend ECON 25100 as a Foundational Behavioral/Social Science (BSS) general education course.
- 7 **CE 49800 Senior Design** must be taken in a student's final semester before graduation. The only exception to this rule is that students who plan to graduate during a summer session may take CE 49800 during the prior spring semester.

Required for Concentration: (B = Breadth Courses; D = Design Courses)

- CE 22200: Life Cyc Engr & Mngt of Constr Fac (B; CON)
- CE 37100: Structural Analysis I (B; STR)
- CE 38300: Geotechnical Engineering I (B; GEO)

Select one of the following courses:

- MGMT 20000: Introductory Accounting
- MGMT 212000: Business Accounting

Select one of the following courses:

- CE 47000: Structural Steel Design (D; STR)
- CE 47300: Reinforced Concrete Design (D; STR)
- CE 48300: Geotechnical Engineering II (D; GEO)

Select one of the following courses:

- CE 32201: Proj Cntrl Life Cyc Constr Fac (CON)
- CE 52100: Construction Business Management (CON)
- CEM 48500 Legal Aspects in Construction Engineering (CON)

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

- CE 35000: Environmental Engineering (B; ENV)
- CE 36100: Transportation Engineering (B & D; TRA)
- CE 44000: Urban Hydraulics (B & D; HYD)
- CE 47000: Structural Steel Design (D; STR)
- CE 47900: Design of Building Components and Systems (D; STR)
- CE 52000: Construction Project Control Systems
- CE 52100: Construction Business Management (CON)

- CE 52200: Computer Applications in Construction (D; CON)
- CE 52300: Selection & Utilization of Constr Equip (D; CON)
- CE 52700: Analytic Meth Dsgn of Constr Oper (D; CON)
- CEM 32400: Human Resource Management in Construction
- CEM 48500: Legal Aspects in Construction Engineering (CON)
- MGMT 30400: Intro to Financial Management

Sequence Requirement: A sequence is defined as a minimum of two (2) technical elective courses from a given CE emphasis area. Each student must complete at least two (2) such sequences of technical electives. Note that completing four courses from a single CE area of emphasis does not meet this requirement; the emphasis areas must be distinct. Certain non-CE designated courses may be used in satisfying this requirement.