Civil Engineering Curriculum Flowchart

GENERAL

BEGINNING FALL 2021

SEM 1
- MA 16500 3 cr
  Calculus I
- CHM 11500 4 cr
  General Chemistry I
- ENGL 106003 4 cr
  Written Comm. Core
- ENGR 13100 2 cr
  Ideas to Innovation I

SEM 2
- MA 16600 4 cr
  Calculus II
- PHYS 17200 4 cr
  Modern Mechanics
- SCI SELECT4 (CHM 11600) 3 cr
  (General Chemistry I)
- ENGR 13200 2 cr
  Ideas to Innovation II
- COM 11400 3 cr
  Oral Comm. Core

SEM 3
- MA 26100 4 cr
  Multivariate Calculus
- PHYS 24100 3 cr
  Electricity and Optics
- CE 29700 3 cr
  Basic Mechanisms: Statics
- CE 20300 4 cr
  Geomatics
- CGT 16400 2 cr
  Computer Graphics
- CE 29202 3 cr
  Contemporary Issues in CE

SEM 4
- MA 26500 3 cr
  Linear Algebra
- CE 21101 3 cr
  Thermal Energy & Sciences in CE
- CE 27000 4 cr
  Structural Mechanisms
- CE 29800 3 cr
  Basic Mechanisms: Dynamics
- GEN ED #1 3 cr
  UCC Humanities

SEM 5
- MA 26600 3 cr
  Differential Equations
- CE 335/497 4 cr
  Materials in Civil Engineering
- CE 37100 3 cr
  Structural Analysis I
- CE 34000 3 cr
  Hydraulics
- GEN ED #2 3 cr
  UCC Behavioral/Social Sciences

SEM 6
- STAT 51100 3 cr
  Statistical Methods
- CE 39800 3 cr
  Engineering System Design
- CE 47300 3 cr
  Reinforced Concrete Design
- CE 34300 1 cr
  Hydraulics Lab
- GEN ED #3 3 cr
  (Social Sciences)

SEM 7
- BASIC SCI5 3 cr
  (BIOL, EAPS, FNR) also for STS
- CEM 48500 3 cr
  Legal Aspects in Construction Engr
- CE 36100 3 cr
  Transportation Engineering
- CE 48300 3 cr
  Geotechnical Engineering II
- GEN ED #4 3 cr
  (Humanities)

SEM 8
- CE 498007 3 cr
  Senior Design
- CE 44200 3 cr
  Hydrology
- CE 22200 3 cr
  Life Cycle Engr & Mgmt
- CE 35000 3 cr
  Environmental Engineering
- GEN ED #5 3 cr
  (Humanities or Social Science)

Legend:

See Foundational Core STS Requirement5

Red
Required by First Year Engineering

Blue
Civil Engineering Core Course

Yellow
Technical Elective

Purple
General Education Course

See the other side of this document for Curriculum Notes and other information

Purdue University Lyles School of Civil Engineering

130 cr. hrs.
Curriculum Notes:

1. This flowchart shows 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 limitation on transfer credit: https://engineering.purdue.edu/CE/Academics/Undergraduate/Current

   Click on the "Technical Elective Policy", the "General Education Electives" 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 and General Education courses is a suggestion and can be modified as needed. Suggested 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 (OC) 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 http://www.purdue.edu/provost/students/s-initiatives/curriculum/courses.html

4. The Science Selective strongly recommended by the School of Civil Engineering is CHM 11600. Other choices for the Science Selective will be accepted for meeting graduation requirements, but students may find themselves at a disadvantage when choosing technical electives if they have not taken CHM 11600.

5. The Basic Science Requirement courses are chosen from an approved list. Examples include: BIOL 11000, 12100* & 28600, 14600, 23000 or EAPS 10000* 10400*, 11100, 12000*, 22100. See advisor for current approved list. Choose starred * courses to meet the STS (Science Technology & Society) if not satisfied by other general education courses. Also refer to http://www.purdue.edu/provost/students/s-initiatives/curriculum/courses.html

6. The Lyles School of Civil Engineering faculty recommend ECON 25100 as a UCC Social Science (BSS) general education course.

7. CE 49800 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.

*Excerpt from Technical Elective Policy

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

- CE 22200: Life Cycle Engineering and Management of Constructed Facilities (B; CON)
- CE 32201: Project Control and Life Cycle Execution of Construct Facilities (CON)
- CE 35000: Environmental Engineering (B; ENV)
- CE 35500: Environmental Sustainability (ENV)
- CE 36100: Transportation Engineering (B & D; TRA)
- CE 37100: Structural Analysis I (B; STR)
- CE 38300: Geotechnical Engineering I (B; GEO)
- CE 40800/59700: Geographic Information Systems (B; GEM)
- CE 44000: Urban Hydraulics (B & D; HYD)
- CE 44200: Introductory Hydrology (HYD)
- CE 45600: Wastewater Treatment Process (D; ENV)
- CE 46100: Roadway and Pavement Design (D; TRA)
- CE 46300: Highway Transportation Characteristics (TRA)
- CE 47000: Structural Steel Design (D; STR)
- CE 47300: Reinforced Concrete Design (D; STR)
- CE 48300: Geotechnical Engineering II (D; GEO)
- CE 51200: The Comprehensive Urban Planning Process (TRA)
- CE 54100: Design of Hydraulic Structures (D; HYD)
- CEM 48500: Legal Aspects in Construction Engineering (CON)