Civil Engineering Curriculum Flowchart[1,2]
ENVIRONMENTAL Engineering Emphasis (BSCE)

Beginning Fall 2026

SEM 1	MA 16100/ MA 16500 — Calculus I — 4 cr.	CHM 11510 + CHM 11520 — General Chemistry — 4 cr.	ENGL 10800[3] — UCC Written Comm. — 3 cr.	ENGR 13100 — Ideas to Innovation I — 2 cr.	
SEM 2	MA 162/166 — Calculus II — 4 cr.	PHYS 17200 — Modern Mechanics — 4 cr.	SCI Select[4] — CHM11610+11620 or CS159 — 3-4 cr	ENGR 13200 — Ideas to Innovation II — 2 cr.	COM 11400[3] — UCC Oral Comm. — 3 cr.
SEM 3	MA 26100 — Multivariate Calculus — 4 cr.	PHYS 24100 — Electricity & Optics♦ — 3 cr.	CCE 29700 — Basic Mech I Statics — 3 cr.	CCE 20300 — Princ & Pract Geomatics♦ — 4 cr.	CM 16400 — Construction Graphics — 2 cr.	CCE 29200 — Contemporary Issues in CE — 2 cr.
SEM 4	MA 26500 — Linear Algebra (Pre-Req Calc II) — 3 cr.	CCE 21100 — Thermal & Energy Sciences♦ — 3 cr.	CCE 27000 — Intro Structural Mechanics — 4 cr.	CCE 29800 — Basic Mech II Dynamics — 3 cr.		GEN ED #1 — UCC Humanities — 3 cr.
SEM 5	MA 26600 — Differential Equations — 3 cr.	CCE 33500 — CE Materials — 4 cr.	CCE 35000 — *Intro Env And Ecol Engineering* Pre-Req CHM 11610 — 3 cr. *B; ENV*	CCE 34000 — Hydraulics — 3 cr.	CCE 34300 — Hydraulics Lab — 1 cr.	GEN ED #2 — UCC Behavioral/ Social Science — 3 cr.
SEM 6	STAT 51100 — Statistical Methods — 3 cr.	CCE 39800 — Intro CE Systems Design* — 3 cr.	TECH EL #2 — 3 cr.	CCE 38300 — *Geotechnical Engineering I* — 3 cr. *B; GEO*	CCE 35500 — *Intro Env And Ecol Engineering* — 3 cr. *ENV*	CCE 39200 — Technical Comm in CE* — 2 cr.
SEM 7	Basic Sci[5] — (BIOL, EAPS, FNR) use for STS if needed — 3 cr.	CCE 45600 — *Wastewater Treat. Process (Fall)* — 3 cr. *D; ENV*	CCE 54300 — *Coastal Engr (Fall)* — 3 cr. *D; HYD*	CCE 44000 — *Urban Hydraulics (Fall)* — 3 cr. *B & D; HYD*	GEN ED #3 — Upper Level/ Non-Intro — 3 cr.	GEN ED #4 — Upper Level/ Non-Intro — 3 cr.
SEM 8	CCE 49800 — CE Design Project *Pre-reqs CCE39200 & CCE39800 — 3 cr.	EEE 30000 — *Envir & Eco Sys Modeling* — 3 cr.	CCE 45700 — *Air Pollution Control & Design (Spring)* — 3 cr. *D; ENV*	CCE 50800 — *Geographic Information Systems* — 3 cr. *B; GEO*		GEN ED #5 — 3 cr.

See Foundational Core STS Requirements[5]

Legend:

Red	Blue	Yellow	Purple
Required by First Year Engineering	Civil Engineering Core Courses	Technical Electives	General Education Courses

Pre-requisite →

Co-requisite ⇢

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

Purdue University Lyles School of Civil and Construction Engineering

Bachelor of Science in Civil Engineering

Revised 5/2026

Civil Engineering Curriculum Flowchart[1,2]
ENVIRONMENTAL Engineering Emphasis (BSCE)

Beginning Fall 2026

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 CE 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.

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

CHM 25700: Organic Chemistry

CCE 35000/EEE 35000: Introduction To Environmental And Ecological Engineering *(B;EN*

CCE 35500/EEE 35500: Engineering Environmental Sustainability *(ENV)*

CCE 38300: Geotechnical Engineering I *(B; GEO)*

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

CCE 44200 Introduction to Hydrology *(HYD)*

CCE 44300: Introductory Environmental Fluid Mechanics *(HYD)*

CCE 45600: Wastewater Treatment Process *(D; ENV)*

CCE 45700: Air Pollution Control and Design *(D; ENV)*

CCE 48300: Geotechnical Engineering II *(D; GEO)*

CCE 49700: Civil And Construction Engineering Projects *(ENV)*

CCE 50800: Geographic Information Systems *(B; GEM)*

CCE 54300: Coastal Engineering *(D; HYD)*

CCE 55700: Air Quality Management *(ENV)*

CCE 59700: Civil Engineering Projects *(D;ENV)*

EEE 30000: Envir & Eco Sys Modeling *(EEE, non CE)*

EEE 53000: Life Cycle Assessment *(EEE, non CE)*