Civil Engineering Curriculum Flowchart
TRANSPORTATION & INFRASTRUCTURE SYSTEM ENGINEERING Emphasis

Beginning Fall 2014

SEM 1
MA 16500 4 cr
Calculus I

SEM 2
MA 16600 4 cr
Calculus II

SEM 3
MA 26100 4 cr
Multivariate Calculus

SEM 4
MA 26500 3 cr
Linear Algebra

SEM 5
MA 26600 3 cr
Differential Equations

SEM 6
STAT 51100 3 cr
Statistical Methods

SEM 7
ME 20000 3 cr
Thermodynamics

SEM 8
CE 49800 3 cr
Senior Design

See Foundational Core STS Requirement

Legend:
- Red: Required by First Year Engineering
- Blue: Civil Engineering Core Course
- Yellow: Technical Elective
- Purple: General Education Course

Pre-requisite
Co-requisite

Italics: suggested Technical Elective; others listed on next page; total of 30 cr. required

B = Breadth courses; D = Design courses

Purdue University Lyles School of Civil Engineering
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 rightside 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.

3. COM 11400 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.

4. The Science Selective strongly recommended by the School of Civil Engineering is CHM 11600. CS 15900 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 Foundational Core 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 School of Civil Engineering strongly recommends ECON 25100 as a social science general education courses.

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.

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

- CE 30300: Engineering Surveying (D; GEM)
- CE 32201: Project Control and Life Cycle Execution of Constructed Facilities (CON)
- CE 35000: Environmental Engineering (B; ENV)
- CE 37100: Structural Analysis I (B; STR)
- CE 44000: Urban Hydraulics (B & D; HYD)
- CE 46100: Roadway and Pavement Design (D; TRA)
- CE 46300: Highway Transportation Characteristics (TRA)
- CE 47300: Reinforced Concrete Design (D; STR)
- CE 48300: Geotechnical Engineering II (D; GEO)
- CE 51200: The Comprehensive Urban Planning Process (TRA)
- CE 56000: Public Mass Transportation (TRA)
- CE 56200: Geometric Design of Highways (D; TRA)
- CE 56500: Traffic Engineering (D; TRA)
- CE 56600: Transportation Planning (TRA)
- CE 59400: Transportation Systems Analysis (TRA)