Civil Engineering Curriculum Flowchart
ENVIRONMENTAL ENGINEERING Emphasis

Beginning
Fall 2014

SEM 1
MA 16500 4 cr
Calculus I

CHM 11500 4 cr
General Chemistry I

ENGL 10600 4 cr
Composition

ENGR 13100 2 cr
Ideas to Innovation I

GEN ED #1 3 cr
Foundational Core – Hum.

SEM 2
MA 16600 4 cr
Calculus II

PHYS 17200 4 cr
Modern Mechanics

SCI SELECT\(\text{a}\) 4 cr
(CHM 11600)

ENGR 13200 2 cr
Ideas to Innovation II

COM 11400\(\text{c}\) 3 cr
Speech Communications

SEM 3
MA 26100 4 cr
Multivariate Calculus

PHYS 24100 3 cr
Electricity and Optics

CE 29700 3 cr
Basic Mechanics: Statics

CE 29800 3 cr
Basic Mechanics: Dynamics

MA 16500

SEM 4
MA 26500 3 cr
Linear Algebra

CE 23100 3 cr
Civil Engineering Materials I

CE 27000 4 cr
Structural Mechanics

CE 29
2
0
2
2
3 cr
Contemporary Issues in CE

SEM 5
MA 26600 3 cr
Differential Equations

CE 33100 3 cr
Civil Engineering Materials II

CE 35000 3 cr
Environmental Engineering

CE 34000 3 cr
Hydraulics

CE 34300 1 cr

GEN ED #2 3 cr
Foundational Core – SS

SEM 6
STAT 51100 3 cr
Statistical Methods

CE 39800 3 cr
Engineering System Design

CE 35500 3 cr
Environmental Sustainability

CE 38300 3 cr
Geotechnical Engineering I

BASIC SCI\(\text{f}\) 3 cr

(BIOL or EAPS)

CE 39201 2 cr

Technical Comm in CE

SEM 7
ME 20000 3 cr
Thermodynamics

CE 408/59700 3 cr
Geographic Info Systems

CE 456/49700 3 cr
Wastewater Treatment Process

CE 44000 3 cr
Urban Hydraulics

TECH EL 3 cr

GEN ED #3 3 cr
(Social Science)

SEM 8
CE 49800\(\text{g}\) 3 cr
Senior Design

CE 59700\(\text{h}\) 3 cr
Water Chemistry

CE 45700 3 cr
Air Pollution Control & Design

CE 44300 3 cr
Environmental Fluid Mechanics

GEN ED #5 3 cr
(Humanities or Social Science)

See Foundational Core STS Requirement\(\text{g}\)

Legend:

[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

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 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.

8. This course does not yet have a permanent course number assigned to it. Please consult with your advisor or the CE Undergraduate Office to determine the appropriate course number to use when registering.

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

- CHM 25700: Organic Chemistry
- CE 35200: Biological Principles of Environmental Engineering (ENV)
- CE 35300: Physico-Chemical Processes in Environmental Engineering (D; ENV)
- CE 35500: Engineering Environmental Sustainability (ENV)
- CE 40800/59700: Geographic Information Systems (B; GEM)
- CE 44300: Environmental Fluid Mechanics (HYD)
- CE 45600/49700: Wastewater Treatment Process (D; ENV)
- CE 45700: Air Pollution Control and Design (D; ENV)
- CE 48300: Geotechnical Engineering II (D; GEO)
- CE 49700?: Environmental and Ecological System Modeling (ENV)
- CE 49700?: Urban Remote Sensing (GEM)
- CE 54200: Hydrology (HYD)
- CE 55400: Aquatic Chemistry in Environmental Engineering (ENV)