Civil Engineering Curriculum Flowchart

GENERAL

Beginning Fall 2011

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

SEM 2
- MA 16600 4 cr  Calculus II
- PHYS 17200 4 cr  Modern Mechanics
- SCI SELECT 4 cr  (CHM 11600)
- ENGR 13200 2 cr  Ideas to Innovation II
- COM 11400 3 cr  Speech Communications
- MA 16500

SEM 3
- MA 26100 4 cr  Multivariate Calculus
- PHYS 24100 3 cr  Electricity and Optics
- CE 29700 3 cr  Basic Mechanics: Statics
- CE 20300 4 cr  Geomatics
- GEN ED #2 3 cr

SEM 4
- MA 26500 3 cr  Linear Algebra
- CE 23100 3 cr  Civil Engineering Materials I
- CE 27000 4 cr  Structural Mechanics
- CE 29800 3 cr  Basic Mechanics: Dynamics
- GEN ED #3 3 cr

SEM 5
- MA 26600 3 cr  Differential Equations
- CE 33100 3 cr  Civil Engineering Materials II
- CE 37100 3 cr  Structural Analysis I
- CE 34000 3 cr  Hydraulics
- CE 34300 1 cr  Hydraulics Lab
- GEN ED #4 3 cr

SEM 6
- STAT 51100 3 cr  Statistical Methods
- CE 39800 3 cr  Engineering System Design
- CE 47300 4 cr  Reinforced Concrete Design
- CE 38300 3 cr  Geotechnical Engineering I
- CE 44000 3 cr  Urban Hydraulics
- GEN ED #5 3 cr

SEM 7
- ME 20000 3 cr  Thermodynamics
- CEM 49700 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

SEM 8
- CE 49800 3 cr  Senior Design
- CE 30300 3 cr  Engineering Surveying
- CE 22200 3 cr  Life Cycle Engr & Mgmt
- CE 35000 3 cr  Environmental Engineering
- GEN ED #6 3 cr

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

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

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

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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 advisor 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 requirement for a general education course, but it is not part of the EAI (Engineering Admission Index). The School of Civil Engineering, however, requires this course for graduation 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. 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.

6. The School of Civil Engineering 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 course; D=Design course):

- CE 22200: Life Cycle Engineering and Management of Constructed Facilities (B; CON)
- CE 30300: Engineering Surveying (D; GEM)
- 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 45600/49700: 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)
- LS 49700: Cadastral Surveying
- CEM 49700: Legal Aspects in Construction Engineering (CON)