Lower Division Pre-engineering Courses

MATH 150 → MATH 152 → MATH 250 → MATH 305

IE 106 → PHYS 141, 141L → PHYS 142, 152L → CE 240 → ME 262

CHEM 131,135 → ACS 103 → CE 204 → CE 206

ENG 101 → ENG 102

1 May be taken concurrently with MATH 152 (indicated by dashed arrow).

Course Key:

- Chem 131,135 Engineering Chemistry and Lab
- CE 204 Engineering Graphics and CAD
- CE 206 Engineering Surveying
- CE 240 Statics
- CE 242 Mechanics of Solids
- ECON 111 Macroeconomics
- ENG 101, 102 English Comp. I and II
- MATH 150,152, 250 Calculus I, II, and III
- MATH 305 Differential Equations
- ME 262 Dynamics
- PHYS 141,151L,142,152L Univ. Physics I and II and Labs
- ACS 103 Interpersonal Communication Skills

UPPER DIVISION COURSES
(All pre-engineering courses should be completed before a student is allowed to take upper-division civil engineering courses)

General Studies Requirements
(See Civil Engineering Curriculum Guide for Additional Important Info)

- ACS 103 (EUSC)
- ECON 111
- IE 106 (NFS)
- Life Science Course (BLS)
- Fine & Performing Arts (BFPA)
- Interdisciplinary Studies (IS)(EGC)(EUSC)
- Health Experience (EH)
1 May be taken concurrently with CE 315.  
2 May be taken concurrently with CE 330.  
3 May be taken concurrently with 460.  
4 May be taken concurrently with CE 445, but CE 343 is a prerequisite and cannot be taken concurrently.  
5 Either 416, 492-11, or 455 must be taken as part of the student's program.  
6 Courses without a “CE” prefix do not require admission to CE upper division to enroll, but do have their own prerequisites (check with your advisor).

**Bold** boxes indicate required courses.  All other boxes are electives.  Students must take four electives, including at least one of CE 416 and CE 455.

Solid arrows indicate prerequisites.  Dashed arrows indicate classes may be taken concurrently.

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**Course Key:**

- **Upper Division Civil Engineering Courses**
  - Environmental/Water:
    - CE 380
    - CE 486
    - CE 487
    - CE 492-GIS
    - CE 492-Water
  - Geotechnical:
    - CE 455
    - CE 457
    - CE 492-10
    - CE 492-11
    - CE 492-12
  - Transportation:
    - CE 473
    - CE 474
    - CE 475
    - CE 476
  - Structural:
    - CE 416
    - CE 493

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**LOWER DIVISION PRE-ENGINEERING COURSES**

- STAT 380
- ECE 210
- ME 310
- PHIL 323
- IE 345

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**Note:** Students seeking to become licensed structural engineers (SE) in the State of Illinois should take 18 hours of structural engineering in upper division and/or graduate school. CE 342, CE 343, CE 455 and CE 493-STR plus any two structural electives can be used to meet this requirement. Two of the 400-level courses must include structural design.