# Civil Engineering (Water Resources Track)

128 credit hours total

## FALL YEAR 1
- **MATH 220 (4)** Analytic Geometry and Calculus I
  - KSC-3
  - PR: MATH 220 ≥ C
- **CHM 210 (4)** Chemistry I
  - KSC-4
- **ENGL 100 (3)** Expository Writing I
  - KSC-1
- **CE 202 (3)** Civil Engineering Graphics
- **CE 212 (3)** Elementary Surveying Engineering
  - PR: MATH 150
- **DEN 160 (1)** College of Engineering Orientation
- **DEN 161 (1)** Engineering Problem Solving
  - PR/CO: MATH 150
- **CE 015 (0)**

(Fall credit hours) 16

## SPRING YEAR 1
- **MATH 221 (4)** Analytic Geometry and Calculus II
  - PR: MATH 221, PHYS 213
- **CE 212 (3)**
- **CE 301 (1)** CE Problem Solving
  - PR: DEN 161 ≥ C
- **CE 015 (0)**

(Spring credit hours) 16

## FALL YEAR 2
- **CE 333 (3)** Statics
  - PR: MATH 221 ≥ C
- **ME 512 (3)** Dynamics
  - PR: MATH 340
- **CE 353 (3)** Mechanics of Materials
  - PR: CE 333 ≥ C or CE 530 ≥ C
- **CE 534 (1)** Mechanics of Materials Laboratory
  - PR/CO: CE 533
- **GEOL 100 (3)** Earth in Action
- **COMM 106 (3)** Public Speaking
  - KSC-2
- **Elective (3)**
- **Elective (4/5)** Math/Science

(Fall credit hours) 16/17

## SPRING YEAR 2
- **MATH 340 (4)** Elementary Differential Equations
  - PR: MATH 221 ≥ C
- **ME 310 (2)** Elements of Thermodynamics
  - PR: PHYS 213, MATH 221
- **CE 357 (3)** Introduction to Structural Analysis
  - PR: CE 533 ≥ C
- **ENGL 415 (3)** Written Communication for Engineers
  - PR: ENGL 100 ≥ B, or ENGL 200
- **COMM 106 (3)**
- **Elective (3)**
- **Elective (3)**

(Spring credit hours) 16

## FALL YEAR 3
- **STAT 510 (3)** Introductory Probability and Statistics I
  - PR: MATH 221
- **CE 522 (3)** Soil Mechanics I
  - PR: CE 533 ≥ C, CE 531 ≥ C
- **CE 537 (3)** Introduction to Transportation Engineering
  - PR: CE 212 ≥ C, MATH 221, PHYS 213
- **CE 501 (1)** Project Economic Evaluation
  - PR: JR Standing
- **CE 502 (1)** Project Management
  - PR: JR Standing
- **CE 552 (3)** Foundation Engineering
  - PR: CE 522 ≥ C

(Fall credit hours) 15

## SPRING YEAR 3
- **CE 522 (3)**
- **CE 533 (3)** Mechanics of Materials
  - PR: CE 212 ≥ C, MATH 221, PHYS 213
- **CE 351 (3)** Incompressible Fluid Mechanics
  - PR: CE 530 ≥ C or ME 512 ≥ C
- **CE 501 (1)**
- **Elective (3)**
- **Elective (3)**

(Spring credit hours) 16/18

## FALL YEAR 4
- **CE 502 (1)**
- **CE 503 (1)**

(Fall credit hours) 16

## SPRING YEAR 4
- **CE 502 (1)**
- **CE 503 (1)**

(Spring credit hours) 16

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**Degree Map is for Advising Purposes Only. Students are responsible for complying with University Catalog Requirements.**
Civil Engineering Curriculum Notes

A GPA of at least 2.25 in the four CE Design elective courses used to satisfy their 12 hours of CE design electives in four areas of civil engineering. If more than 12 hours of CE Design electives, the best 12 hours that meet the requirement of four different design areas and the track requirements will be used to compute the CE Design elective GPA.

A resident cumulative GPA of 2.30 or better is required for a change of major from any engineering program to civil engineering.

Substitutions
BAE 560 can be substituted for CE 550.
DEN 325 can be substituted for PHILO 185.
CE 542 or CE 544 can be substituted for CE 572.
CE 752 can be substituted for CE 751.
CE 654, CE 751 or CE 752 can be replaced with another acceptable CE Track Elective

Electives
• Approved Civil Engineering electives and requirements are available at ce.k-state.edu/undergrad/student-handbooks.

• Math/Science electives are to be selected from the list approved by the department to satisfy the requirements.

• The Design elective courses selected should cover at least four different design areas: Environmental, Geotechnical, Structural, Transportation/Materials and Water Resources.

• CE Track electives are to be selected from the list approved by the department and in consultation with the student’s faculty advisor to satisfy track requirements.

K-State Core
The K-State Core (KSC) is the university’s version of the systemwide general education framework established by the Kansas Board of Regents.

KSC requirement 1 – English (6 hours)
KSC requirement 2 – Communications (3 hours)
KSC requirement 3 – Math and Statistics (3 hours)
KSC requirement 4 – Natural and Physical Sciences (4-5 hours)
KSC requirement 5* – Social and Behavioral Sciences (6 hours)
KSC requirement 6* – Arts and Humanities (6 hours)
KSC requirement 7 – Institutional Electives (6 hours)

To view course lists for each requirement, visit k-state.edu/provost/kstate-core.

*Requires two courses from two different subject areas.

K-State Core

K-State Core