

# Civil Engineering

College of  
Engineering

The student of civil engineering has a broad field of study to provide a strong foundation for entry into the profession or graduate school. Major areas include construction engineering, environmental engineering, geotechnical engineering, materials engineering, structural engineering, transportation engineering, and water resources engineering.

Admission to the degree program is selective. Students should refer to the UK *Bulletin* for general information concerning admission and graduation requirements.

## Degree Requirements

The following curriculum meets the requirements for a B.S. in Civil Engineering, provided the student satisfies UK Core and College of Engineering requirements.

### Freshman Year

First Semester	Hours
CE 120 Introduction to Civil Engineering .....	1
CIS/WRD 110 Composition and Communication I .....	3
MA 113 Calculus I .....	4
UK Core – Creativity and the Arts .....	3
UK Core – Social Sciences .....	3
<b>Second Semester</b>	
CE 106 Computer Graphics and Communication .....	3
CHE 105 General College Chemistry I .....	3
MA 114 Calculus II .....	4
PHY 231 General University Physics .....	4
PHY 241 General University Physics Laboratory .....	1

### Sophomore Year

First Semester	Hours
CE 211 Surveying .....	4
CHE 107 General College Chemistry II .....	3
EM 221 Statics .....	3
STA 210 Making Sense of Uncertainty: An Introduction to Statistical Reasoning .....	3
MA 213 Calculus III .....	4
<b>Second Semester</b>	
CS 221 First Course in Computer Science for Engineers .....	2
EM 302 Mechanics of Deformable Solids .....	3
MNG 303 Deformable Solids Laboratory .....	1
MA 214 Calculus IV .....	3
PHY 232 General University Physics .....	4
PHY 242 General University Physics Laboratory .....	1
CIS/WRD 111 Composition and Communication II .....	3

### Junior Year

First Semester	Hours
CE 303 Introduction to Construction Engineering** .....	4
CE 341 Introduction to Fluid Mechanics .....	4
CE 381 Civil Engineering Materials I** .....	3
GLY 220 Principles of Physical Geology .....	4
Statistics Elective [1] .....	3
<b>Second Semester</b>	
CE 331 Transportation Engineering** .....	3
CE 351 Introduction to Environmental Engineering .....	3
CE 382 Structural Analysis .....	3
Engineering Science Elective [2] .....	3
Math Elective or Science Elective [3] .....	3
UK Core – Humanities .....	3

### Senior Year

First Semester	Hours
CE 461G Water Resources Engineering** .....	4
CE 471G Soil Mechanics** .....	4
CE 48X Structures Elective [4] .....	3
CE Technical Design Elective [5] .....	3
UK Core – Citizenship - US .....	3
<b>Second Semester</b>	
CE 401 Seminar** .....	1
CE 429 Civil Engineering Systems Design** .....	4
CE Technical Design Elective [5] .....	3
CE Technical Elective [6] .....	3
Supportive Elective [7] .....	3
UK Core – Global Dynamics .....	3

\*\*CE communication throughout the curriculum component.

[1] Students pursuing a math minor should take MA/STA 320 instead of STA 381.

[2] To be chosen from ME 220 or EM 313.

[3] Math or Science Elective Options: MA 321, MA 322, MA 416G, MA 432G, BIO 208, CHE 230, CHE 236, EE 305, GEO 409G, GLY 550, GLY 585, MNG 551, or the other half of the Engineering Science Elective in [2]. NOTE: MA 322 is required for a math minor.

[4] To be selected from: CE 482 or CE 486G.

[5] Students are required to select two design electives from different areas. Choose from: CE 531 or CE 533, CE 534, CE 549, CE 579, CE 589. **Design elective courses are typically taught once a year.**

[6] CE Technical Electives are to be chosen from any of the courses at the 300-level or above that carry a CE prefix and in which a student is qualified to enroll, exclusive of required courses. **Engineering elective courses are typically taught once a year.**

[7] Supportive elective is to be chosen from any University course, excluding a more elementary version of a required course, such as precalculus mathematics or PHY 211. However, each CE area has at least one recommendation for the supportive elective. Please review the Optional Specialization section in the Civil Engineering Undergraduate Handbook. The supportive elective can be taken pass-fail.

The University of Kentucky is accredited by the Commission on Colleges of the Southern Association of Colleges and Schools to award baccalaureate, masters, doctorate, and professional degrees. Contact the Commission on Colleges at 1866 Southern Lane, Decatur, Georgia 30033-4097 or call 404-679-4500 for questions about the accreditation of the University of Kentucky.