

## Online Structural Engineering Courses and UK-CE Graduate Certificate in Structural Engineering

### Department of Civil Engineering (CE) - University of Kentucky (UK)

#### What Courses are Offered in Academic Year 2021 (August 2020 to July 2021)?

##### **CE 582 – Intermediate Structural Analysis (3-semester credit hours, offered in Spring)**

Analysis of indeterminate, truss, frame and arch structures using energy principles associated with the flexibility and stiffness methods; influence line functions for indeterminate structures; and use of available computer programs for structural analysis and matrix operations. Prerequisites: Elementary Structural Analysis (e.g., CE 482 at UK), or consent of instructor.

##### **CE 586 – Prestressed Concrete (3-semester credit hours, offered in Spring)**

Fundamental basis and underlying principles for the analysis and design of prestressed concrete. Working stress and ultimate strength design methods, full and partial prestressing. Design for shear and torsion, deflection, crack control, and long-term effects, and prestress losses. Composite beams, continuous beams, slabs, short and slender columns, precast structures and their connections. Prerequisites: Reinforced Concrete (e.g. CE 482 at UK), or consent of instructor.

##### **CE 687 – Advanced Steel Design (3-semester credit hours, offered in Fall)**

Strength of structural steel columns, including asymmetry and slender compression elements. Flexural strength of slender plate girders. Shear strength with and without post-buckling strength. Frame stability. Steel connections. Floor vibration serviceability. Prerequisites: Steel Concrete (e.g. CE 587 at UK), or consent of instructor.

#### What is the Cost per Credit Hour?

US \$693 for Fall 2020 is the cost per credit hour for both in-state and out-of-state students, including international students. Please note the cost may be different for courses offered in 2021. Also note that there may be some applicable fees in addition to credit hour cost.

#### Who Can Register for the Online Courses?

Undergraduate<sup>a</sup>, Post-Baccalaureate, and Graduate Engineering Students (Civil, Mechanical, Mining, Agricultural, etc.) who satisfy the prerequisites for the course they wish to register for.

#### Can the Online Structural Engineering Courses Count Towards a BS, MS, or Ph.D. Degree at my University if it is not the University of Kentucky?

Yes.<sup>a,b,c,d</sup>

**Note:** *You should check with your academic advisor at your university prior to registering for any of the Online courses if you wish to transfer them to your university.*

#### How Can I Earn a Graduate Certificate in Structural Engineering?

Students should apply Online for the Certificate prior to registering for the first course:

<https://www.uky.edu/academics/graduate-certificate/structural-engineering-online>

Students will need to register and pass all three Online courses in order to be awarded the Graduate Certificate in Structural Engineering.

**Note:** *The on-campus/in-class versions of the courses do not count towards the certificate. Only Online courses count towards the certificate.*

#### Do I Have to Take All Three Online Courses?

Only if you wish to earn a UK-CE Graduate Certificate in Structural Engineering. Otherwise, any of the three courses may be applied toward a BS, MS, or Ph.D. degree requirements at your university.<sup>a,b,c,d</sup>

## I Have a BS Degree and I Want to Register for 1, or 2, or All 3 Courses, How Do I Go About it?

You will need to apply for admission as Post-Baccalaureate:

<http://gradschool.uky.edu/post-baccalaureate>

## How and When do I Register for the Online Courses?

You can register online:

<http://www.uky.edu/registrar/registration>

**Registration Deadline:** <https://www.uky.edu/registrar/>

**Note:** *If you are not currently a University of Kentucky Student, and have not yet registered as a Post-Baccalaureate, you will need to apply for admission as a Post-Baccalaureate:*

<http://gradschool.uky.edu/post-baccalaureate>

## Do the Online CE 582, 586, & 687 Cover the Same Material as the University of Kentucky On-Campus/In-Class CE 582, 586, and 687?

Yes.

*Both Online and In-Class formats cover the same course material and have similar homework assignments and exams.*

## Additional Information for University of Kentucky Students

### I am an Undergraduate Student or University Scholar at UK, What Courses can I take Towards my BS Degree?

CE 582 and CE 586 can count as Technical Electives. <sup>a,b</sup>

**Note:** *You should check with your academic advisor prior to registering for CE 582 and/or CE 586.*

### I am a University Scholar or Graduate Student at UK, What Online Structures Courses can I Take Towards my MS or Ph.D. Degree?

All three courses.

<sup>a</sup> *Undergraduate students can only register for CE 582 and CE 586.*

<sup>b</sup> *Undergraduate students should check with their academic advisors if the CE 582 and CE 586 courses will count as Technical or Engineering Electives.*

<sup>c</sup> *Post Baccalaureate and Graduate students can generally transfer up to 9-credit hours towards a graduate degree. Students should first check with their academic advisors.*

<sup>d</sup> *CE 582, CE 586, and CE 687, Pursuant to SARA (the State Authorization Reciprocity Agreement), are authorized to be delivered via online or hybrid format to students who are physically located in SARA member states and territories.*

*Currently, "49 states (all but California), the District of Columbia, Puerto Rico and the U.S. Virgin Islands are members of SARA." California is not a current member of SARA. However, on July 29, 2019, the state established a complaint process for California distance learning students (a mandated requirement that was required for students to be eligible for financial aid). This will enable California distance learning students to continue to receive financial aid.*