

Graduate Certificate in Structural Analysis

Graduate Certificate Overview

The objective of the Structural Analysis certificate program is to allow students to focus on the analytical evaluation of structural systems and components. This provides students with the opportunity to both broaden and deepen knowledge in this area of structural engineering by learning the most up-to-date theory and techniques used in practice. The Structural Analysis Graduate Certificate has a basis in computational structural analysis techniques, with optional courses in a variety of advanced analysis areas. It offers an opportunity for industrial practitioners to enhance their structural analysis skills without necessarily having to apply for and complete a Master's degree. The program consists of four courses (12 credit hours).

Standard Admission Requirements for all Graduate Programs

- All applicants must meet the requirements outlined in the Admission to Graduate Study (<https://policy.ku.edu/graduate-studies/admission-to-graduate-study/>) policy.
- Bachelor's degree: A copy of official transcripts showing proof of a bachelor's degree (and any post-bachelor's coursework or degrees) from a regionally accredited institution, or a foreign university with equivalent bachelor's degree requirements is required.
- English proficiency: Proof of English proficiency (<https://gradapply.ku.edu/english-requirements/>) for non-native or non-native-like English speakers is required. There are two bands of English proficiency, including Admission and Full proficiency. For applicants to online programs, Full proficiency is required.

Additional Graduate Program Admission Requirements

- A bachelor's degree in engineering with a GPA of 3.0 or better is required for admission to this graduate certificate program.
- Graduate courses taken for this certificate may be eligible to transfer for credit towards a graduate degree program.

Four (4) courses are required to complete the certificate, two of which are mandatory. Students select the remaining two courses from the list of additional accepted courses.

Code	Title	Hours
Mandatory Courses:		
CE 761	Matrix Analysis of Framed Structures	3
CE 861	Finite Element Methods for Solid Mechanics	3
Additional Courses Satisfying Certificate Requirements (Choose 2)		
CE 704	Dynamics and Vibrations	3
CE 710	Structural Mechanics	3
CE 801	Energy Methods	3
CE 810	Theory of Elastic Stability	3
CE 864	Seismic Performance of Structures	3

The completion requirements of the graduate certificate in Structural Design include: (a) the minimum grade for any course to be applied toward the certificate is a grade of B; and (b) no credits may be transferred from another institution for this certificate.

At the completion of this program, students will be able to:

- Acquire and integrate new knowledge as needed, using appropriate learning strategies.