Graduate Certificate in Structural Analysis

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).

A bachelor’s degree in engineering with a GPA of 3.0 or better is required for admission to this graduate certificate 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.

Mandatory Courses:

1. CE 761 Matrix Analysis of Framed Structures
2. CE 861 Finite Element Methods for Solid Mechanics

Additional Courses Satisfying Certificate Requirements:

1. CE 704 Dynamics and Vibrations
2. CE 710 Structural Mechanics
3. CE 800 Theory of Elasticity
4. CE 801 Energy Methods
5. CE 810 Theory of Elastic Stability
6. CE 864 Seismic Performance of Structures
7. CE 869 Plates and Shells

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.