GRADUATE CERTIFICATE: STRUCTURAL ENGINEERING

Student Learning Outcomes

Students graduating from this program will:

- Design structures made one or more of the materials such as wood, masonry, steel and concrete
- Analyze complex structures subjected to both static and dynamic loads
- Analyze and design bridge structures made of steel, concrete or prestressed concrete

Code	Title	Credits
CIV-ENGR 5517	Advanced Structural Analysis	3
CIV-ENGR 5521	Matrix Methods of Structural Analysis	3
CIV-ENGR 5523	Advanced Structural Steel Design	3
CIV-ENGR 5526	Prestressed Concrete	3
CIV-ENGR 5527	Advanced Reinforced Concrete Design	3
CIV-ENGR 5529	Advanced Design of Structures for Blast and Fire	3
CIV-ENGR 5575	Seismic Design of Structures	3

Total Hours: 12

Graduate Certificate in Structural Engineering, requires a total of four courses:

1. Required (mandatory): two (6 credit hours) of the following courses.
    a. CE 5527; CE5523, CE5517, CE5526

2. Electives: two elective courses (6 credit hours) from 7 courses listed above