GRADUATE CERTIFICATE IN STRUCTURAL ENGINEERING

The graduate certificate in structural engineering program is appropriate for those who wish to gain specialized knowledge in one of the following tracks: earthquake engineering design of bridges and buildings, extreme event design of structures to resist the effects of accidental explosions and vehicular collision, concrete bridge design using the LRFD approach, or building design using the LRFD approach.

Students who successfully complete the certificate program may opt to continue towards a master's degree in civil and environmental engineering department. All courses completed by the student in the graduate certificate program with a grade of B or better can be transferred to the master's degree program.

Visit the program website (https://www.cee.seas.gwu.edu/certificate-structural-engineering/) for additional information.

ADMISSIONS

Admission deadlines:

Fall – January 15
Spring – September 1
Summer – March 1

Standardized test scores:

The Test of English as a Foreign Language (TOEFL), the Academic International English Language Testing System (IELTS), or the PTE Academic is required of all applicants except those who hold a bachelor's, master's, or doctoral degree from a college or university in the United States or from an institution located in a country in which English is *the* official language, provided English was the language of instruction. Minimum scores:

- Academic IELTS: an overall band score of 6.0 with no individual score below 5.0; or
- TOEFL: 550 on paper-based or 80 on Internet-based; or
- PTE Academic: 53.

Applicants with lower test scores may qualify for our full-time Applied English Studies program (https://graduate.seas.gwu.edu/aes-eap-coursework/).

Prior academic records:

Transcripts are required from all colleges and universities attended, whether or not credit was earned, the program was completed, or the credit appears as transfer credit on another transcript. Unofficial transcripts from all colleges and universities attended must be uploaded to your online application. Official transcripts are required **only** of applicants who are offered admission.

If academic records are in a language other than English, a copy in the original language and an English language translation must be uploaded. Transcript evaluations should not be uploaded. Applicants with degrees from Indian universities should upload transcripts and/or detailed marksheets.

Statement of purpose:

In an essay of 250 to 500 words, state your purpose in undertaking graduate study at The George Washington University; describe your academic objectives, research interests, and career plans; and discuss your related qualifications, including collegiate, professional, and community activities, and any other substantial accomplishments not already mentioned.

Additional requirements:

Applicants should possess an undergraduate degree in engineering, the physical sciences, or applied mathematics.

International applicants only:

International applicants requiring a visa from GW are not eligible to apply for admission to this program, but may apply for the MS, PhD, or a professional degree (AppSc or Engr) in civil and environmental engineering (https://www.cee.seas.gwu.edu/graduate-programs/) with an area of focus in structural engineering.

For additional information about the admissions process visit the SEAS Admissions Frequently Asked Questions (https://graduate.engineering.gwu.edu/admissions-frequently-asked-questions/) page.

Contact for questions:

engineering@gwu.edu
202-994-1802 (phone)
202-994-1651 (fax)

Hours: 9:00 am to 5:00 pm, Monday through Friday

REQUIREMENTS

The following requirements must be fulfilled: 12 credits in required courses taken in one of the following tracks:

Earthquake engineering design

Code	Title	Credits
Required		
CE 6202	Methods of Structural Analysis	
CE 6342	Structural Design to Resist Natural Hazards	
CE 6404	Geotechnical Earthquake Engineering	
CE 6800	Special Topics (Advanced Earthquake Engineering Topics)	

Concrete bridge design

Code	Title	Credits
Required		
CE 6301	Design of Reinforced Concrete Structures	
CE 6302	Prestressed Concrete Structures	
CE 6310	Advanced Reinforced Concrete Structures	
CE 6800	Special Topics (Advanced Bridge Design Topics)	

Extreme event design of structures

Code	Title	Credits
Required		
CE 6202	Methods of Structural Analysis	
CE 6342	Structural Design to Resist Natural Hazards	
CE 8330	Advanced Finite Element Analysis	
CE 6800	Special Topics ((Advanced Blast Resistant Topics)	

Building design

Code	Title	Credits
Required		
CE 6310	Advanced Reinforced Concrete Structures	
CE 6342	Structural Design to Resist Natural Hazards	
CE 6320	Design of Metal Structures	
CE 6800	Special Topics (Advanced Building Design Topics)	