Certificate in Structural Engineering

This certificate is intended for students in the Department of Civil and Environmental Engineering who want to specialize in the analysis, design, and construction of all types of structures, including buildings and bridges.

There are six required courses or their equivalents:

CivE 127	Statics and Solid Mechanics 1
CivE 204	Statics and Solid Mechanics 2
CivE 205	Mechanics of Solids 2
CivE 303	Structural Analysis 1
CivE 313	Structural Concrete Design 1
CivE 413	Structural Steel Design

Plus at least five of the following courses or their equivalents:

Arch 276	Timber: Design, Structure and Construction
CivE 306	Mechanics of Solids 3
CivE 403	Structural Analysis 2
CivE 405	Structural Dynamics
CivE 507	Building Science and Technology
CivE 512	Rehabilitation of Structures
CivE 414	Structural Concrete Design 2
CivE 415	Structural Systems
CivE 422	Finite Element Analysis
CivE 554	Geotechnical Engineering 3
CivE 596	Construction Engineering

A student must have a minimum average of 70% and a minimum course grade of 60% for the courses specified above to qualify for the certificate.

A student who does not meet the minimum marks criteria for the *Certificate in Structural Engineering* can petition the Associate Chair, Undergraduate Studies, for an exception to the marks standard and, if approved, be awarded the certificate. Normally, an exception can only be based on inadequate marks in CivE 127, CivE 204 or CivE 205. A certificate will not be awarded to a student who does not meet the standard in third year or higher courses.

Updated by Wei-Chau Xie in Winter 2008

University of Waterloo
Department of Civil and Environmental Engineering
Application for the Certificate in Structural Engineering

Name: _____ I.D. Number: _____

Please print in the way you want it to appear on the Certificate

Term in which 4B will be (was) completed: _____

Required Courses	**Term in which the course was taken** (e.g. 4B, Winter 2000)	**Grade**
CIV E 127 Statics		
CIV E 204 Mechanics of Solids 1		
CIV E 205 Mechanics of Solids 2		
CIV E 303 Structural Analysis		
CIV E 313 Structural Concrete Design		
CIV E 413 Structural Steel Design		
Elective Courses (At Least 5)		
ARCH 276 Timber: Design, Structure and Construction		
CIV E 306 Mechanics of Solids 3		
CIV E 403 Structural Analysis 2		
CIV E 405 Structural Dynamics		
CIV E 507 Building Science and Technology		
CIV E 512 Rehabilitation of Structures		
CIV E 414 Structural Concrete Design 2		
CIV E 415 Structural Systems		
CIV E 422 Finite Element Analysis		
CIV E 554 Geotechnical Engineering 3		
CIV E 596 Construction Engineering		
	Average	

A student must have a minimum average of 70% and a minimum course grade of 60% for the courses specified above to qualify for the certificate.

If you do not meet the minimum marks criteria for the Certificate in Structural Engineering, you can petition the Associate Chair, Undergraduate Studies, for exception to the marks standard. Please use a separate sheet to justify why you should be awarded the Certificate in Structural Engineering.

Updated by Shirley Springall in Spring 2010