CERTIFICATE IN STRUCTURAL ENGINEERING

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

There are eight (8) required courses or their equivalents:

CivE 104	Mechanics 1
CivE 105	Mechanics 2
CivE 204	Solid Mechanics 1
CivE 205	Solid Mechanics 2
CivE 303	Structural Analysis
CivE 310	Introduction to Structural Design
CivE 413	Structural Steel Design
CivE 414	Structural Concrete Design

Plus at least three (3) of the following courses or their equivalents:

Arch 277	Timber: Design, Structure and Construction for Engineers
CivE 306	Mechanics of Solids 3
CivE 415	Structural Systems
CivE 422	Finite Element Analysis
CivE 505	Structural Dynamics
CivE 507	Building Science and Technology
CivE 512	Rehabilitation of Structures
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 lower year courses.

Updated June 2018

UNIVERSITY OF WATERLOO
Department of Civil and Environmental Engineering

Application for the Certificate in Structural Engineering

For students entering IA Fall 2015 and later

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 2016)	**Grade**
CivE 104	Mechanics 1		
CivE 105	Mechanics 2		
CivE 204	Solid Mechanics 1		
CivE 205	Solid Mechanics 2		
CivE 303	Structural Analysis		
CivE 310	Introduction to Structural Design		
CivE 413	Structural Steel Design		
CivE 414	Structural Concrete Design		
Elective Courses (At Least 3)			
Arch 277	Timber: Design, Structure and Construction for Eng		
CivE 306	Mechanics of Solids 3		
CivE 415	Structural Systems		
CivE 422	Finite Element Analysis		
CivE 505	Structural Dynamics		
CivE 507	Building Science and Technology		
CivE 512	Rehabilitation of Structures		
CivE 554	Geotechnical Engineering 3		
CivE 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.

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