

Curriculum for BEng in Civil and Structural Engineering

Major Program Requirements

Core courses

CIVL	001	Academic and Professional Development I	[0-1-0:0]
CIVL	002	Academic and Professional Development II	[0-1-0:0]
CIVL	003	Academic and Professional Development III	[0-1-0:0]
CIVL	101	History and Practice of Civil Engineering	[1-0-0:1]
CIVL	111	Construction Materials	[2-1-3:3]
CIVL	112	Mechanics of Materials	[3-1-0:3]
CIVL	113	Statics and Dynamics	[3-1-0:3]
CIVL	141	Environmental Engineering and Management	[3-1-0:3]
CIVL	151	Fluid Mechanics	[3-1-2:3]
CIVL	181	Modeling Systems with Uncertainties	[3-1-0:3]
CIVL	231	Structural Analysis	[3-1-1:3]
CIVL	232	Structural Concrete Design	[3-1-1:3]
CIVL	252	Hydraulics	[3-2-1:3]
CIVL	253	Hydrology	[3-1-0:3]
CIVL	270	Geology for Civil Engineers	[3-0-3:3]
CIVL	272	Soil Mechanics	[3-1-1:3]
CIVL	334	Structural Steel Design	[3-2-0:3]
CIVL	372	Geotechnical Analysis and Design	[3-1-0:3]
CIVL	395	Integrated Civil Engineering Design Project	[2-1-0:2]
CIVL	397	Civil Engineering Project I	[0-0-6:2]
CIVL	398	Civil Engineering Project II	[0-0-12:4]
IELM	311	Engineers in Society	[1-0-0:1]

Required courses

(1)	CIVL	098	Internship Training	[0 credit]
(2)	CIVL	099	Industrial Training	[0 credit]
	CIVL	102	Surveying and Surveying Camp	[2-0-3:2]
	CIVL	114	Civil Engineering Drawing	[0-0-3:1]
	CIVL	202	Construction Engineering I	[2-1-0:2]
	CIVL	242	Water and Wastewater Engineering	[3-1-0:3]
	CIVL	261	Traffic and Transportation Engineering	[3-1-0:3]
	CIVL	303	Construction Engineering II	[2-1-0:2]
	COMP	102	Computer and Programming Fundamentals I	[3-0-2:3]
	IELM	202	Introduction to Operations Research	[2-1-0:2]
	MATH	100	Introduction to Multivariable Calculus	[2-1-0:2]
	MATH	152	Applied Linear Algebra and Differential Equations	[4-1-0:4]
	MATH	230	Introduction to Numerical Methods	[2-1-0:2]

Elective courses

	Elective types		Minimum no. of courses	Minimum total credits
(3)	ENGG	Engineering Elective	3	9
	SB&M	Business and Management Elective	1	2

General Education Requirements

Electives must be selected from amongst those general education courses that are listed under the section “Designated General Education Courses for Undergraduate Students”.

	Elective types	Minimum no. of courses	Minimum total credits
(4)	GEE(SCIE) Science General Education Elective or GEE(SB&M) Business and Management General Education Elective or GEE(H&SS) Humanities and Social Science General Education Elective	-	12

Required Courses in English Communication

(5)	LANG 106	English for Engineering Students I	[0-2-0:1]
	LANG 206	English for Engineering Students II	[0-2-0:1]
	LANG 306	English for Engineering Students III	[0-2-0:1]

Other Requirement

(6)	HLTH 001	Healthy Life Style	[0 credit]
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Note:

- (1) Students are required to complete and pass the internship training in the summer of their second year of study.
- (2) Students are required to complete and pass a prescribed training program within the normal length of study. Details of the program, its requirements and schedule will be announced on the website of the Industrial Training Center (<http://www.ust.hk/itc>) or website of the department in the first year Fall Semester. Training normally takes place in the Winter and Summer Sessions starting from the first year of study.
- (3) ENGG 351 and ENGG 395 can be used to count toward the ENGG elective requirement.
- (4) Of these courses, at least one course in Humanities and one in Social Science are required. SOSC 111 is a recommended elective.
- (5) The course can also be replaced by LANG 101.
- (6) Students are required to take and pass this course in their first year of study. Details of the course and its requirements are announced on the course website <http://www.ab.ust.hk/sao/HLTH001> managed by the Student Affairs Office.

A minimum of 104 credits is required for the BEng program in Civil and Structural Engineering.

Recommended Pattern of Study for BEng in Civil and Structural Engineering

1st year	Fall	C CIVL 101, CIVL 113 R CIVL 102, CIVL 114, COMP 102, HLTH 001, LANG 106, MATH 100, MATH 152	(Total: 16 credits)
	Spring	C CIVL 001, CIVL 111, CIVL 112, CIVL 141, CIVL 151, CIVL 181 R HLTH 001, LANG 106, MATH 230	(Total: 18* credits)

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	Summer	R	CIVL 099	
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2nd year	Fall	C	CIVL 231, CIVL 253, CIVL 270	
		R	CIVL 242, IELM 202, LANG 206	
		E	three credits from GEE^	(Total: 17 credits)
	Spring	C	CIVL 002, CIVL 232, CIVL 252, CIVL 272	
		R	CIVL 202, CIVL 261, LANG 206	
		E	three credits from GEE^	(Total: 18* credits)
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	Summer	R	CIVL 098	
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3rd year	Fall	C	CIVL 334, CIVL 372, CIVL 397	
		R	CIVL 303, LANG 306	
		E	eight credits from GEE, SB&M or ENGG^	(Total: 18 credits)
	Spring	C	CIVL 003, CIVL 395, CIVL 398, IELM 311	
		R	LANG 306	
		E	nine credits from GEE, SB&M or ENGG^	(Total: 17* credits)

* LANG 106, LANG 206 and LANG 306 are two-semester courses. The course credit (1 credit) will be earned on completion of the courses at the end of the respective Spring Semester.

^ In selecting these elective courses, students should ensure that they can meet the minimum course and credit requirements of each elective type to graduate.

C = core course; R = required course; E = elective course