



# Course offer Civil Engineering

2023-2024

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## CIVIL ENGINEERING

Are you interested in contributing to the construction of the largest lock project in the world? In determining how high and how strong dikes should be to ensure flooding does not take place? Or would you like to make sure that people and animals can continue to live safely near coasts and rivers despite climate change? If your answer is 'yes' to the questions above, the Civil Engineering programme at HZ may be the right choice for you!

It is expected that by 2050 80% of the world's population will live in delta areas. In these areas, where rivers meet the sea, there are increasing challenges due to climate change. With your expertise as a civil engineer, you will tackle problems such as coastal safety and urban flooding and contribute to safety in deltas around the world. During your study, you learn everything about the design and building of large constructions and managing huge international projects. Examples include the Panama locks in the Panama Canal; the Channel tunnel that connects the United Kingdom with France; and the magnificent Palm Islands in Dubai, a design that could have been yours if you were already a civil engineer! Doing Civil Engineering at HZ means you are studying in the middle of a delta area: when walking out of the University of applied sciences, you will encounter your field of work all around you.

The Civil Engineering programme focuses upon nine competencies, divided into two typologies: six technical competencies refer to the so-called design, creation and maintenance process, where the generic HBO skills are important in each stage. This concerns the competencies of (1) Initiating and controlling, (2) Designing, (3) Specifying, (4) Realizing, (5) Management and (6) Monitoring, testing and evaluating. The generic HBO competencies are (7) Research, (8) Communication and collaboration and (9) Management and innovation.

The Civil Engineering programme offers a variety of subjects of specialization, related to the focus areas: (1) Spatial planning and design, (2) Water, soil and environment, (3) Infrastructure and mobility (4) Construction and engineering.

## COURSE OFFER 2023-2024

During your Civil Engineering studies at HZ, you have to choose one 30,0 ECTs block worth of credits among the ones offered by the programme. Mixing among different blocks is not advised, as it could lead to overlapping lessons.

The full description of the courses can be found at the following link: <https://hz.nl/en/about-hz/rules-and-regulations> under "Regulations study programmes".

## COURSE OFFER CIVIL ENGINEERING - FALL SEMESTER

Study year		Course code	Course name	ECs	
1	Block 1	CU20596V1	Introduction CE	2,5	30,0
		CU79090V1	Construction Materials 1	2,5	
		CU20598V1	Mathematics & Physics	2,5	
		CU20600V1	Fluid mechanics 1	2,5	
		CU26000V2	Exploring Civil Engineering - Project & Professional Skills 1	5,0	
	Block 2	VCCU06284	HZ personality CE 0	1,25	
		VCCU06283V6	VCA	1,25	
		CU20604V1	Fluid mechanics 2	2,5	
		CU79091V1	Construction Materials 2	2,5	
		CU20602V1	Mathematics 1	2,5	
CU20603V3	Exploring Civil Engineering - Project & Professional Skills 2	5,0			
2	Block 1	CU23856	Transport Infrastructure 1	2,5	30,0
		CU23857	Structural Engineering 1	2,5	
		CU23875	Environmental Engineering Foundations 1	2,5	
		CU23859	Foundations 1	2,5	
		CU206001	HZ personality CE 1	1,25	
	CU23860V2	Inland infrastructure development - Project & Professional Skills 5	3,75		
	Block 2	CU23861	Transport Infrastructure 2	2,5	
		CU23874	Structural Engineering 2	2,5	
		CU23858	Rural Water Management	2,5	
		CU23876	Foundations 2	2,5	
CU206002		HZ personality CE 2	1,25		
CU23877V3	Inland infrastructure development - Project & Professional Skills 6	3,75			
4	S1	CU79085V2	Coastal Challenge	10,0	30,0
		CU79086V1 or CU79087V1	Advanced Construction Engineering or Urban Water Management	10,0	
		CU79086V1 or CU79087V1 or CU20700V1 or CU75044V1 + CU75043V1	Advanced Construction Engineering or Urban Water Management or Advanced Water Technology or Change yes we can + Making Business Intelligent	10,0	

## COURSE OFFER CIVIL ENGINEERING - SPRING SEMESTER

Study year		Course code	Course name	ECs	
1	Block 3	CU20605V1	Soil Mechanics 1	2,5	30,0
		CU20613V1	Mathematics 2	2,5	
		CU79092V1	Applied Mechanics 1	2,5	
		EN39001 or EN39002 or EN39003 or EN39004	English B1 or English B2 or English C1 or English C2 – continues in block 4	2,5	
		CU20607V4	Sustainability and circularity in Civil Engineering - Project & Professional Skills 3	5,0	
	Block 4	CU20608V1	Hydrology	2,5	
		CU20609V1	Soil Mechanics 2	2,5	
		CU79093V1	Applied Mechanics 2	2,5	
		EN39001 or EN39002 or EN39003 or EN39004	English B1 or English B2 or English C1 or English C2	2,5	
		CU20612V4	Sustainability and circularity in Civil Engineering - Project & Professional Skills 4	5,0	
2	Block 3	CU23878	Coastal Engineering 1	2,5	30,0
		CU23879	Structural Engineering 3	2,5	
		CU23880	Water supply and Sanitation	2,5	
		CU23881	Project Management 1	2,5	
		CU206003	HZ personality CE 3	1,25	
		CU23882V2	Coastal zone development - Project & Professional Skills 7	3,75	
	Block 4	CU23883	Coastal Engineering 2	2,5	
		CU79094V1	Applied Mechanics 3	2,5	
		CU23885	Dredging and Ecology	2,5	
		CU23886V1	Project Management 2	2,5	
		CU206004	HZ personality CE 4	1,25	
		CU23887V3	Coastal zone development - Project & Professional Skills 8	3,75	