

# Civil Engineering

## Study Year 1 (Mandatory Courses)

Course Code	Credits	Cycle	S.Ex. stud.	Language	Course Name	Footnote	Links	19/20 sp1					19/20 sp2					19/20 sp3					19/20 sp4				
								F	O	L	H	S	F	O	L	H	S	F	O	L	H	S	F	O	L	H	S
<a href="#">VTGA01</a>	4	G1	-	S	Engineering Geology		<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">W</a> <a href="#">T</a>	28	14	8	0	57															
<a href="#">EMAA05</a>	15	G1	-	S	Calculus in One Variable		<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">W</a> <a href="#">T</a>	50	30	0	0	133	50	30	0	0	107										
<a href="#">VTVA10</a>	4	G1	-	S	Engineering Skills with CAD		<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">W</a> <a href="#">T</a>	12	22	2	2	33	4	14	0	1	17										
<a href="#">FAFA45</a>	7.5	G1	-	S	Thermodynamics with Applications		<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">W</a> <a href="#">T</a>						42	28	16	0	114										
<a href="#">VBMA30</a>	6	G1	-	S	Building Materials		<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">T</a>											26	24	12	0	98					
<a href="#">FMAB20</a>	6	G1	-	S	Linear Algebra	X	<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">W</a> <a href="#">T</a>											40	16	0	0	106					
<a href="#">VBFA01</a>	10	G1	-	S	Building Technology and Building Services		<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">W</a> <a href="#">T</a>											18	27	0	0	85	16	48	8	0	65
<a href="#">VSMA25</a>	7.5	G1	-	S	Mechanics		<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">W</a> <a href="#">T</a>																42	42	0	0	116

[FMAB20](#) Linear Algebra: *The course is an admission requirement for [FMNF15](#) Scientific Computing.*

## Study Year 2 (Mandatory Courses)

Course Code	Credits	Cycle	Language		Course Name	Footnote	Links	19/20				19/20				19/20				19/20								
			S.Ex. stud.					sp1	sp2	sp3	sp4	F	O	L	H	S	F	O	L	H	S	F	O	L	H	S	F	O
<a href="#">FMAB30</a>	6	G1	-	S	Calculus in Several Variables		<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">W</a> <a href="#">T</a>	44	16	2	0	100																
<a href="#">MIOA12</a>	6	G1	-	S	Managerial Economics, Basic Course		<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">W</a> <a href="#">T</a>	50	12	5	0	93																
<a href="#">FMIF50</a>	6	G2	-	S	Environmental Science, Especially Environmental Chemistry		<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">W</a> <a href="#">T</a>	36	0	10	2	112																
<a href="#">VSMA05</a>	8	G1	-	S	Structural Mechanics		<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">W</a> <a href="#">T</a>						32	46	2	0	133											
<a href="#">FMNF15</a>	6	G2	-	S	Scientific Computing		<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">W</a> <a href="#">T</a>						24	0	26	1	69	2	0	10	1	27						
<a href="#">VBEA10</a>	5	G1	-	S	The Construction Process		<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">W</a> <a href="#">T</a>											26	26	8	0	73						
<a href="#">VBKF15</a>	9	G2	-	S	Structural Engineering		<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">W</a> <a href="#">T</a>											30	26	0	1	76	10	18	2	1	76	
<a href="#">VVRA05</a>	9	G1	-	S	Water		<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">W</a> <a href="#">T</a>											26	16	0	0	78	24	18	1	0	77	
<a href="#">VVAF01</a>	5	G2	-	S	Water and Wastewater Technology		<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">W</a> <a href="#">T</a>																	24	22	4	0	83

### Study Year 3 (Mandatory Courses)

Course Code	Credits	Cycle	Language		Course Name	Footnote	Links	19/20				19/20				19/20				19/20								
			S.Ex. stud.					sp1	sp2	sp3	sp4	F	O	L	H	S	F	O	L	H	S	F	O	L	H	S	F	O
<a href="#">VGMF15</a>	5	G2	X	E	Geodetic Surveying		<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">W</a> <a href="#">T</a>	20	16	8	2	87																
<a href="#">VGTF05</a>	5	G2	-	S	Soil Mechanics		<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">W</a> <a href="#">T</a>	22	16	2	0	93																
<a href="#">VVBF20</a>	5	G2	-	S	Road Construction		<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">W</a> <a href="#">T</a>	18	20	10	0	85																
<a href="#">FMSF50</a>	7.5	G2	-	S	Mathematical Statistics, Basic Course		<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">W</a> <a href="#">T</a>						26	16	8	0	140											
<a href="#">VTTF01</a>	7.5	G2	-	S	Traffic Engineering		<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">W</a> <a href="#">T</a>						36	28	0	0	136											

### Study Year 3 (Elective Mandatory Courses)

Course Code	Credits	Cycle	Language			Course Name	Footnote	Links	19/20															
			S.Ex. stud.						sp1	sp2	sp3	sp4												
								F	O	L	H	S	F	O	L	H	S	F	O	L	H	S		
<a href="#">VBKF01</a>	7.5	G2	-	S		Structural Engineering - Building Systems		<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">W</a> <a href="#">T</a>			20	28	4	2	146									
<a href="#">VBEF01</a>	7.5	G2	-	S		Project Management		<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">W</a> <a href="#">T</a>			28	41	4	2	125									
<a href="#">VVBF10</a>	7.5	G2	-	S		Economics		<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">W</a> <a href="#">T</a>			28	18	0	0	154									
<a href="#">VSMF05</a>	7.5	G2	-	S		Engineering Modelling: Analysis of Structures		<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">W</a> <a href="#">T</a>			16	28	4	0	152									
<a href="#">VTGF01</a>	7.5	G2	-	S		Rock Mechanics and Construction		<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">W</a> <a href="#">T</a>											32	18	12	2	136	
<a href="#">VBMF05</a>	7.5	G2	-	S		Building Material Science		<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">T</a>											26	24	20	0	130	
<a href="#">ASBF10</a>	7.5	G2	-	S		Sustainable Urban Design		<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">T</a>											37	8	0	7	148	
<a href="#">VTAF01</a>	7.5	G2	-	E1		Sound in Building and Environment		<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">W</a> <a href="#">T</a>											28	28	4	0	140	

## Specialisation at - Infrastructure Engineering

Course Code	Credits	Cycle	Mand./ Elect.	Language			Course Name	Footnote	Links	sp1				sp2				sp3				sp4					
				Year	From year	S.Ex. stud.				F	O	L	H	S	F	O	L	H	S	F	O	L	H	S	F	O	L
<a href="#">VSMN25</a>	7.5	A	V	4	4	X	E1	The Finite Element Method - Flow Analysis		<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">W</a> <a href="#">T</a>	32	32	0	0	136												
<a href="#">VTVN01</a>	7.5	A	V	4	4	-	S	Highway Design		<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">W</a> <a href="#">T</a>	28	42	0	2	128												
<a href="#">VBKN05</a>	7.5	A	V	4	4	X	E1	Concrete Structures		<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">W</a> <a href="#">T</a>									24	26	3	1	146				
<a href="#">VSMN30</a>	7.5	A	V	4	4	X	E1	The Finite Element Method - Structural Analysis		<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">W</a> <a href="#">T</a>									32	32	0	0	136				
<a href="#">VTGN10</a>	7.5	A	V	4	4	X	E	Groundwater Engineering		<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">W</a> <a href="#">T</a>									46	28	1	0	125				
<a href="#">VTVF85</a>	7.5	G2	V	4	4	-	S	Railway Design		<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">W</a> <a href="#">T</a>									28	42	0	2	128				
<a href="#">VBMN10</a>	7.5	A	V	4	4	-	S	Concrete in a Life-cycle Perspective		<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">T</a>									30	18	12	0	140				
<a href="#">VVBN10</a>	7.5	A	V	4	4	-	S	Pavement Design and Construction		<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">W</a> <a href="#">T</a>									28	40	8	2	122				
<a href="#">VGMF10</a>	7.5	G2	V	4	4	X	E1	Geodesy		<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">W</a> <a href="#">T</a>													20	20	16	0	144
<a href="#">VGTN01</a>	7.5	A	V	4	4	-	S	Foundation Engineering		<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">W</a> <a href="#">T</a>													20	44	0	0	136
<a href="#">VVBN05</a>	7.5	A	V	5	5	-	S	Highway Maintenance		<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">W</a> <a href="#">T</a>	28	40	8	2	122												
<a href="#">VTGN01</a>	7.5	A	V	5	4	X	E	Field Investigation Methodology		<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">W</a> <a href="#">T</a>	22	24	20	4	130												
<a href="#">VBKN10</a>	7.5	A	V	5	5	X	E1	Risk Management in Construction Technology Applications		<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">W</a> <a href="#">T</a>									20	38	0	3	139				

## Specialisation bf - Construction Management

Course Code	Credits	Cycle	Mand./ Elect.	Year	From year	S.Ex. stud.	Language	Course Name	Footnote	Links	sp1				sp2				sp3				sp4						
											F	O	L	S	F	O	L	S	F	O	L	S	F	O	L	S			
<a href="#">VBEF15</a>	7.5	G2	V	4	4	-	S	Technique for Construction Management		<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">W</a> <a href="#">T</a>	28	46	16	0	110														
<a href="#">VBFF01</a>	7.5	G2	V	4	4	-	S	Energy Efficiency and Indoor Environment		<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">W</a> <a href="#">T</a>	26	11	14	1	148														
<a href="#">VBEN25</a>	7.5	A	V	4	4	-	S	Construction Logistics and Purchasing		<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">T</a>						24	34	0	4	138									
<a href="#">VBFN05</a>	7.5	A	V	4	4	-	S	Energy, Air Movements and Moisture at Rebuilding and Administration		<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">W</a> <a href="#">T</a>						35	10	8	6	141									
<a href="#">VBEF10</a>	7.5	G2	V	4	4	-	S	Real Estate Management		<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">W</a> <a href="#">T</a>											28	28	8	2	134				
<a href="#">VVBN10</a>	7.5	A	V	4	4	-	S	Pavement Design and Construction		<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">W</a> <a href="#">T</a>						28	40	8	2	122									
<a href="#">VBEN01</a>	7.5	A	V	4	4	-	S	The Role of the Construction Client		<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">W</a> <a href="#">T</a>															28	28	0	0	144
<a href="#">VBFN10</a>	7.5	A	V	4	4	-	S	Design concerning Energy, Air Movements and Moisture in New Buildings		<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">W</a> <a href="#">T</a>											22	22	7	3	146				
<a href="#">VVBN05</a>	7.5	A	V	5	5	-	S	Highway Maintenance		<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">W</a> <a href="#">T</a>	28	40	8	2	122														
<a href="#">VBMN05</a>	7.5	A	V	5	5	-	S	Moisture Safety in the Building Process		<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">T</a>	28	42	0	0	130														
<a href="#">VBFN01</a>	7.5	A	V	5	5	-	S	Sustainable Building Technology		<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">W</a> <a href="#">T</a>	26	14	12	1	147														
<a href="#">VBEN15</a>	7.5	A	V	5	5	-	S	Construction Management		<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">T</a>						26	40	0	4	130									
<a href="#">VFTN40</a>	7.5	A	V	5	5	-	E	Real Estate Finance		<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">W</a> <a href="#">T</a>						30	10	0	2	158									

## Specialisation hb - Building Technology

Course Code	Credits	Cycle	Mand./ Elect.	Year	From year	S.Ex. stud.	Language	Course Name	Footnote	Links	sp1				sp2				sp3				sp4						
											F	O	L	H	S	F	O	L	H	S	F	O	L	H	S	F	O	L	H
<a href="#">VBFE15</a>	7.5	G2	V	4	4	-	S	Technique for Construction Management		<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">W</a> <a href="#">T</a>	28	46	16	0	110														
<a href="#">VBFF01</a>	7.5	G2	V	4	4	-	S	Energy Efficiency and Indoor Environment		<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">W</a> <a href="#">T</a>	26	11	14	1	148														
<a href="#">VTAN01</a>	7.5	A	V	4	4	X	E	Acoustics		<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">W</a> <a href="#">T</a>						28	28	12	0	132									
<a href="#">VBKN05</a>	7.5	A	V	4	4	X	E1	Concrete Structures		<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">W</a> <a href="#">T</a>						24	26	3	1	146									
<a href="#">VBFN05</a>	7.5	A	V	4	4	-	S	Energy, Air Movements and Moisture at Rebuilding and Administration		<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">W</a> <a href="#">T</a>						35	10	8	6	141									
<a href="#">VBFE10</a>	7.5	G2	V	4	4	-	S	Real Estate Management		<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">W</a> <a href="#">T</a>											28	28	8	2	134				
<a href="#">VBKN25</a>	7.5	A	V	4	4	X	E1	Design of Steel Structures		<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">W</a> <a href="#">T</a>											24	24	2	2	148				
<a href="#">VGTN01</a>	7.5	A	V	4	4	-	S	Foundation Engineering		<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">W</a> <a href="#">T</a>															20	44	0	0	136
<a href="#">VBFN10</a>	7.5	A	V	4	4	-	S	Design concerning Energy, Air Movements and Moisture in New Buildings		<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">W</a> <a href="#">T</a>															22	22	7	3	146
<a href="#">VBMN05</a>	7.5	A	V	5	5	-	S	Moisture Safety in the Building Process		<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">T</a>	28	42	0	0	130														
<a href="#">VBFN01</a>	7.5	A	V	5	5	-	S	Sustainable Building Technology		<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">W</a> <a href="#">T</a>	26	14	12	1	147														
<a href="#">VBKN30</a>	7.5	A	V	5	4	X	E1	Design of Timber Structures		<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">W</a> <a href="#">T</a>	26	20	2	2	150														
<a href="#">VBEN15</a>	7.5	A	V	5	5	-	S	Construction Management		<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">T</a>						26	40	0	4	130									
<a href="#">VBKN10</a>	7.5	A	V	5	5	X	E1	Risk Management in Construction Technology Applications		<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">W</a> <a href="#">T</a>						20	38	0	3	139									

## Specialisation ko - Structural Analysis and Design



Course Code	Credits	Cycle	Mand./ Elect.	Year	From year	S.Ex. stud.	Language	Course Name	Footnote	Links	sp1				sp2				sp3				sp4											
											F	O	L	H	S	F	O	L	S	F	O	L	S	F	O	L	S	F	O	L	S	F	O	L
<a href="#">VTVN15</a>	7.5	A	V	4	4	X	E1	Traffic Engineering and Analysis		<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">W</a> <a href="#">T</a>	26	26	0	0	148																			
<a href="#">VTVN01</a>	7.5	A	V	4	4	-	S	Highway Design		<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">W</a> <a href="#">T</a>	28	42	0	2	128																			
<a href="#">EMIN30</a>	7.5	A	V	4	4	-	S	Environmental Systems Studies: Life Cycle Analysis		<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">W</a> <a href="#">T</a>	12	6	0	1	81	10	6	0	1	83														
<a href="#">VTVN20</a>	7.5	A	V	4	4	X	E1	Traffic Safety		<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">W</a> <a href="#">T</a>						26	26	0	0	148														
<a href="#">VTVF85</a>	7.5	G2	V	4	4	-	S	Railway Design		<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">W</a> <a href="#">T</a>						28	42	0	2	128														
<a href="#">ASBF20</a>	7.5	G2	V	4	4	-	S	Urban Planning		<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">T</a>											10	35	0	6	149									
<a href="#">VTVN10</a>	7.5	A	V	4	4	X	E1	Traffic Simulation		<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">W</a> <a href="#">T</a>											10	32	8	2	148									
<a href="#">VVBN10</a>	7.5	A	V	4	4	-	S	Pavement Design and Construction		<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">W</a> <a href="#">T</a>											28	40	8	2	122									
<a href="#">VGMF10</a>	7.5	G2	V	4	4	X	E1	Geodesy		<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">W</a> <a href="#">T</a>																20	20	16	0	144				
<a href="#">VTTN10</a>	7.5	A	V	4	4	X	S	Public Transport		<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">W</a> <a href="#">T</a>																28	34	16	0	122				
<a href="#">VVBN05</a>	7.5	A	V	5	5	-	S	Highway Maintenance		<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">W</a> <a href="#">T</a>	28	40	8	2	122																			
<a href="#">ASBN50</a>	7.5	A	V	5	5	X	S	Urban Renewal		<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">T</a>	19	51	0	6	124																			
<a href="#">VTTN05</a>	7.5	A	V	5	5	X	E	Transport Management	X	<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">W</a> <a href="#">T</a>						34	16	0	0	150														
<a href="#">VTVN05</a>	7.5	A	V	5	5	-	S	Urban Infrastructure Design	X	<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">W</a> <a href="#">T</a>	Course on hold																							

[VTTN05](#) Transport Management: *The course is offered every other academic year and will be given in 2019/20, 2021/22.*

[VTVN05](#) Urban Infrastructure Design: *The course is offered every other academic year and will be offered in 2020/21.*

## Specialisation vr - Water Resources

Course Code	Credits	Cycle	Mand./ Elect.	Year	From year	S.Ex. stud.	Language	Course Name	Footnote	Links	sp1				sp2				sp3				sp4						
											F	O	L	H	S	F	O	L	H	S	F	O	L	H	S	F	O	L	H
<a href="#">VVRF01</a>	7.5	G2	V	4	4	X	E	Integrated Water Resources Management: International Aspects		<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">W</a> <a href="#">T</a>	22	4	0	1	173														
<a href="#">VVAN05</a>	15	A	V	4	4	X	E	Urban Waters		<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">W</a> <a href="#">T</a>	34	50	11	0	105	16	49	8	0	127									
<a href="#">VTGN10</a>	7.5	A	V	4	4	X	E	Groundwater Engineering		<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">W</a> <a href="#">T</a>						46	28	1	0	125									
<a href="#">VTGN05</a>	7.5	A	V	4	4	X	E	Groundwater Modelling and Contaminant Transport		<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">W</a> <a href="#">T</a>										20	34	0	12	134					
<a href="#">VVAN20</a>	7.5	A	V	4	4	X	E	Advanced Wastewater Treatment		<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">W</a> <a href="#">T</a>										18	22	0	0	60	4	10	8	0	78
<a href="#">VVRN35</a>	7.5	A	V	4	4	X	E	Hydromechanics		<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">W</a> <a href="#">T</a>										16	8	0	0	76	16	8	0	0	76
<a href="#">EXTF01</a>	7.5	G2	V	4	4	X	E1	Geographical Information Systems for Landscape Studies		<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">W</a> <a href="#">T</a>														16	2	34	0	148	
<a href="#">VVRN20</a>	7.5	A	V	4	4	X	E	Water, Society and Climate Change		<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">W</a> <a href="#">T</a>														32	0	0	1	167	
<a href="#">VVRN10</a>	7.5	A	V	5	5	X	E	Rainfall Runoff Modelling		<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">W</a> <a href="#">T</a>	28	4	12	1	155														
<a href="#">VSMN25</a>	7.5	A	V	5	5	X	E1	The Finite Element Method - Flow Analysis		<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">W</a> <a href="#">T</a>	32	32	0	0	136														
<a href="#">VVRN40</a>	7.5	A	V	5	5	X	E	Environmental Hydraulics		<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">W</a> <a href="#">T</a>	32	16	0	0	152														
<a href="#">VVRN30</a>	7.5	A	V	5	4	X	E	Coastal Hydraulics		<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">W</a> <a href="#">T</a>						28	26	0	0	146									
<a href="#">VVRN25</a>	7.5	A	V	5	4	X	E	Pipe System Engineering and Hydraulics		<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">W</a> <a href="#">T</a>						26	12	0	2	160									

### Elective Courses - V



Course Code	Credits	Cycle	Year	From year	S.Ex. stud.	Language	Course Name	Footnote	Links	sp1				sp2				sp3				sp4									
										F	O	L	H	S	F	O	L	S	F	O	L	S	F	O	L	S	F	O	L	S	
<a href="#">EMSF25</a>	2.5	G2	2	1	-	S	Mathematical Statistics - Complementary Project	X	<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">W</a> <a href="#">T</a>					0	0	8	1	50													
<a href="#">EMSF25</a>								X														0	0	8	1	50					
<a href="#">IYT000</a>	15	G2	4	3	-	S	Engineering Training Course		<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">W</a>	0	0	0	0	400																	
<a href="#">IYT000</a>														0	0	0	0	400													
<a href="#">IYT000</a>																		0	0	0	0	400									
<a href="#">VBKF20</a>	7.5	G2	4	4	-	S	CAD and BIM Applications in Construction		<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">W</a> <a href="#">T</a>									8	20	0	2	70	8	20	0	2	70				
<a href="#">IYT000</a>	15	G2	4	3	-	S	Engineering Training Course		<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">W</a>													0	0	0	0	400					
<a href="#">VVRF05</a>	7.5	G2	4	4	-	E	International Summer Water Resources Research School		<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">W</a> <a href="#">T</a>													10	10	50	10	120					

[EMSF25](#) Mathematical Statistics - Complementary Project: *Only one of the courses [EMSF25](#) and [EMSF50](#) may be included in a degree.*

## Externally Elective Courses - V

Course Code	Credits	Cycle	Year	From year	S.Ex. stud.	Language	Course Name	Footnote	Links	Links																			
										sp1	sp2				sp3				sp4										
										F	O	L	H	S	F	O	L	H	S	F	O	L	H	S	F	O	L	H	S
<a href="#">GEMA20</a>	7.5	G1	4	1	-	E	English for Engineers	X	<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">W</a> <a href="#">T</a>	30	0	0	0	70	20	0	0	0	80										
<a href="#">GEMA70</a>	15	G1	4	1	-	S	Japanese for Engineers	X	<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">W</a> <a href="#">T</a>	0	34	0	0	165	0	32	0	0	165										
<a href="#">GEMA25</a>	7.5	G1	4	1	-	S	German for Engineers	X	<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">W</a> <a href="#">T</a>	0	40	0	0	60	0	40	0	0	60										
<a href="#">GEMA20</a>	7.5	G1	4	1	-	E	English for Engineers	X	<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">W</a> <a href="#">T</a>											30	0	0	0	70	20	0	0	0	80
<a href="#">GEMA01</a>	7.5	G1	4	1	-	S	French for Engineers: Language, Culture and Society, First Course	X	<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">W</a> <a href="#">T</a>											0	26	0	0	74	0	26	0	0	74
<a href="#">GEMA65</a>	7.5	G1	4	1	-	S	Chinese for Engineers	X	<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">W</a> <a href="#">T</a>											0	20	0	0	80	0	20	0	0	80

[GEMA20](#) English for Engineers: *LTH common courses (courses where the course code begins with GEM) counts as external elective courses in the degree requirements for students admitted autumn 2011 and later.*

[GEMA70](#) Japanese for Engineers: *LTH common courses (courses where the course code begins with GEM) counts as external elective courses in the degree requirements for students admitted autumn 2011 and later.*

[GEMA25](#) German for Engineers: *LTH common courses (courses where the course code begins with GEM) counts as external elective courses in the degree requirements for students admitted autumn 2011 and later.*

[GEMA01](#) French for Engineers: Language, Culture and Society, First Course: *LTH common courses (courses where the course code begins with GEM) counts as external elective courses in the degree requirements for students admitted autumn 2011 and later.*

[GEMA65](#) Chinese for Engineers: *LTH common courses (courses where the course code begins with GEM) counts as external elective courses in the degree requirements for students admitted autumn 2011 and later.*

## Bachelor's Projects - V

The list contains the bachelor's projects that are included in the V programme.

### Links

Course Code	Credits	Course Name	Links
VBFL01	15	Bachelor Project in Building Physics	<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a>
VBML01	15	Bachelor Project in Building Materials	<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a>
VSML01	15	Bachelor Project in Structural Mechanics	<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a>
VBEL01	15	Bachelor Project in Construction Management	<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">W</a>
AEBL01	15	Bachelor Project in Energy and Building Design	<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a>
VGML01	15	Bachelor Project in Geodetic Surveying	<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a>
VGTL01	15	Bachelor Project in Geotechnical Engineering	<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a>
ABKL01	15	Bachelor Project in Building Services	<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a>
VBKL01	15	Bachelor Project in Structural Engineering	<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a>
FMIL01	15	Bachelor Project in Environmental Studies	<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a>
ASBL01	15	Bachelor Project in Urban Planning and Design	<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a>
VTAL01	15	Bachelor Project in Engineering Acoustics	<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a>
VTGL01	15	Bachelor Project in Engineering Geology	<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a>
VVRL01	15	Bachelor Project in Water Resources Engineering	<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a>
VTTL01	15	Bachelor Project in Traffic Planning and Engineering	<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a>
VVBL01	15	Bachelor Project in Road Construction	<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">W</a>
VVAL01	15	Bachelor Project in Water and Environmental Engineering	<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a>

## Degree Projects - V

The list contains the degree project courses that are included in the V programme.

### Links

Course Code	Credits	Course Name	Links
VBFM01	30	Degree Project in Building Physics	<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">W</a>
VBMM01	30	Degree Project in Building Materials	<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">W</a>
VSMM01	30	Degree Project in Structural Mechanics	<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a>
VBEM01	30	Degree Project in Construction Management	<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">W</a>
AEBM05	30	Degree Project in Energy and Building Design	<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a>
VGMM01	30	Degree Project in Geodetic Surveying	<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a>
VGTM01	30	Degree Project in Geotechnical Engineering	<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a>
ABKM01	30	Degree Project in Building Services	<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a>
VBKM01	30	Degree Project in Structural Engineering	<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a>
FMIM01	30	Degree Project in Environmental Studies	<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">W</a>
ASBM05	30	Degree Project in Urban Planning and Design	<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a>
VTAM01	30	Degree Project in Engineering Acoustics	<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a>
VTGM05	30	Degree Project in Engineering Geology	<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a>
VVRM05	30	Degree Project in Water Resources Engineering	<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">W</a>
VTVM01	30	Degree Project in Traffic Planning and Engineering	<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a>
VTVM05	30	Degree Project in Road Construction	<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">W</a>
VVAM05	30	Degree Project in Water and Environmental Engineering	<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a>