

Study Programme 2016-2017

Civil Engineering

Semester 5

Course	Lec.	LwT	Tut.	Prac.	Project	Course Hours	Student Hours	ECTS Credits	Code
Unit 5.1 Upgrading courses (tutorials)							26		
Mathematics or Civil Engineering Technology		26				26	26		211020
Unit 5.2 Mechanical Engineering							80	8	
Structural Design 1	20		28	6		54	54	5	211110
Continuum Mechanics 1		26				26	26	3	211120
Unit 5.3 Computing and Mathematics							104	8	
Computing		14		4	24	42	42	3,5	211220
Mathematics 1	20		26			46	46	3,5	211230
Computer-Aided Design (CAD)				16		16	16	1	211240
Unit 5.4 Geology for Engineers, Materials and Process							85	7	
Geology for Engineers 1	14		10	14		38	36	3	211310
Materials 1	12		8	9		29	29	2,5	211320
Building Processes		6	12			18	18	2	211340
Unit 5.5 Sport and Soft Skills 1							60	4	
Career Planning			10			10	10	0,75	211410
Corporate Communication			10			10	10	0,75	211420
Sport			22			22	22	1	211430
Economic environment	12		6			18	18	1,5	211440
Unit 5.6 Languages							44	3	
English			24			24	24	2	211510
Second language									
-> German			20			20	20	1	211530
-> Spanish			20			20	20	1	211540
-> French			20			20	20	1	211550
Remedial English			15			15	15	0	211560
Total :							399	30	

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Note :
According to the timetable,
the personal work of the student for all the Units of the semester
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Civil Engineering

Semester 6

Course	Lec.	LwT	Tut.	Prac.	Project	Course Hours	Student Hours	ECTS Credits	Code
Unit 6.1 Civil Works and Structures							105	8	
Multidisciplinary Project					54	54	54	4	212030
Numerical Structural Design	10		12	9		31	31	2,5	212040
Bridges		6	14			20	20	1,5	212050
Unit 6.2 Geology and Geotechnics							107	8	
Geology for Engineers 2	8		6	13	16	43	43	3,25	212110
Earthworks	14		6			20	20	1,5	212120
Geotechnics 1	12		20	12		44	44	3,25	212130
Unit 6.3 Materials and Dimensioning of Structures							116	9	
Materials 2	10		6	8		24	24	2	212210
Structural Design 2	8		14	6		28	28	2	212220
Dimensioning of Structures	20		24			44	44	3,5	212230
Continuum Mechanics 2		20				20	20	1,5	212240
Unit 6.4 Sport and Soft skills							32	2	
Corporate Communication			10			10	10	1	212430
Sport			22			22	22	1	212440
Unit 6.5 Languages							44	3	
English			24			24	24	2	212510
Second language									
-> German			20			20	20	1	212530
-> Spanish			20			20	20	1	212540
-> French			20			20	20	1	212550
Remedial English			18			18	18	0	212560
Total :							404	30	

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Study Programme 2016-2017

Civil Engineering

Semester 7

Course	Lec.	LwT	Tut.	Prac.	Project	Course Hours	Student Hours	ECTS Credits	Code
Unit 7.1 Digital tools							76	5	
Finite Elements	14		14	20		48	48	3	213110
Numerical Analysis	6		10	12		28	28	2	213120
Unit 7.2 Dimensioning of structures 1							94	7	
Prestressed Concrete	12		12			24	24	2	213210
Reinforced Concrete	22		24			46	46	3	213220
Dynamics of Structures	14		10			24	24	2	213230
Unit 7.3 Soil and Rock Science 1							72	6	
Hydrogeology	12		8	8		28	28	2,5	213310
Geotechnics 2	12		12			24	24	2	213320
Fluid Mechanics	10		10			20	20	1,5	213330
Unit 7.4 Soft skills 1							118	9	
Quality, Hygiene and Safety / Safety Coordination	24					24	24	1,5	213410
Work placement debriefing			10			10	10	0,75	213420
Organisation and planification of a building project Management	14		12		26	52	52	4,25	213430
Public Works Contract Management	10					10	10	0,75	213440
Introduction to Research	12					12	12	1	213450
	2				8	10	10	0,75	213460
Unit 7.5 Languages							42	3	
English			22			22	22	2	213510
Second language									
-> German			20			20	20	1	213530
-> Spanish			20			20	20	1	213540
-> French			20			20	20	1	213550
Remedial English			18			18	18	0	213560
Total :							402	30	

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Study Programme 2016-2017

Civil Engineering

Semester 8

Course	Lec.	LwT	Tut.	Prac.	Project	Course Hours	Student Hours	ECTS Credits	Code	
Unit 8.1 Dimensioning of Structures 2							114	9		
Data Analysis	12		12			24	24	2	214110	
Metal Construction	12		14			26	26	2	214120	
Civil engineering Materials			4	12		16	16	1,5	214130	
Concrete Framework	26		22			48	48	3,5	214140	
Unit 8.2 Soil and Rock Science 2							108	8		
Topography	6		6	12		24	24	1,5	214210	
Geotechnics 3	15		11			26	26	2	214220	
Urban Hydrology	14		16	16		46	46	3,5	214230	
Geographic Information System	6		6			12	12	1	214240	
Unit 8.3 Languages							42	3		
English			20			20	20	2	214310	
Second language										
-> German			20			20	20	1	214330	
-> Spanish			20			20	20	1	214340	
-> French			20			20	20	1	214350	
Remedial English			18			18	18	0	214370	
Unit 8.4 Soft Skills							56	3		
Building Law	14					14	14	0,75	214420	
Project Management	14					14	14	0,75	214430	
Management of private building markets	12					12	12	0,75	214440	
Sustainable Development	4					4	4		214450	
Marketing	12					12	12	0,75	214460	
Unit 8.5 Assistant Engineer Placement (starting at the end of April Minimum of 6 weeks)							80	7	214510	
Total :							400	30		

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Study Programme 2016-2017

Civil Engineering

Semester 9

Course	Lec.	LwT	Tut.	Prac.	Project	Course Hours	Student Hours	ECTS Credits	Code
Unit 9.1 Advanced Courses in Civil Engineering							117	8	
Sustainable Construction	9					9	9	0,5	215110
Roads and Main Networks	12					12	12	0,75	215120
Soil-Structure Interaction	12					12	12	0,75	215130
Materials Durability	12					12	12	0,75	215140
Composite Construction	12		12			24	24	1,75	215150
Wooden Construction	12		12			24	24	1,75	215160
Geographic Information Systems	8		8	8		24	24	1,75	215170
Unit 9.2 Workshops / Projects							123	12	
<i>Choice of one thematic workshop from the list below :</i>									
-> Workshop 1 : Works Management Assistance	10				20	30	30	3	215211
-> Workshop 2 : Simulations on Specific Works	10				20	30	30	3	215212
-> Workshop 3 : Diagnostic and Repairing Defects in Engineering Structures	10				20	30	30	3	215213
-> Project 4 :Quality - Safety - Environment					36	36	36	4	215220
-> Project 5 : Design of Civil Engineering Works					57	57	57	5	215230
Unit 9.3 Soft skills and cross-disciplinary modules							110	7	
2 modules to be chosen from the following list *									
Corporate Management	14		16			30	30	2	215310
Team Management and Change Management	24					24	24	2	215320
How to succeed in a job interview	8					8	8		215330
<i>Cross-Disciplinary modules - 2 courses to be chosen from the following list :</i>									
-> Life Cycle Assessment (LCA) and eco-design	8					8	48	1,5	925500
-> Intercultural Management	24					24		1,5	925511
-> Approaches of social and interdependent economy	12		12			24		1,5	925513
-> Entrepreneurship	24					24		1,5	925516
-> Co-Design in Polytech Lille's fablab			24			24		1,5	925517
-> High Tech innovation Management and Business Intelligence	24					24		1,5	925523
-> Discover the Internet of things	12			12		24		1,5	925530
-> Industrial Waste Management in France	24					24		1,5	925540
-> Renewable Energy	16			8		24		1,5	925571
-> Mobilizing the collective intelligence: a key resource in the team work	24					24		1,5	925580
-> Introduction to Digital Art Technologies	24					24		1,5	925592
-> Economy, Geopolitics and international Geostrategy	24					24		1,5	925595
-> Fundamentals of project engineering and commercial Negotiation	24					24		1,5	925598
-> Production Management	16			8		24		1,5	925599
Unit 9.4 Languages							52	3	
English			20			20	20	1,75	215410
Second language									
-> German			20			20	20	0,75	215440
-> Spanish			20			20	20	0,75	215450
-> French			20			20	20	0,75	215460
-> Professional language (choice between English or the Second foreign language)			12			12	12	0,5	215470
Total :							402	30	

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* The list of cross-disciplinary modules may change from one academic year to the other.

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Civil Engineering

Semester 10

Course	Lec.	LwT	Tut.	Prac.	Project	Course Hours	Student Hours	ECTS Credits	Code
Unit 10.1 Final year project (at the beginning of February - 4 to 6 months)							250	20	
Final year project (at a company of civil engineering)							250		216110
Unit 10.2 Engineer Placement (between June and September Minimum of 12 weeks)*							150	10	
Engineer placement									216210
Total :							400	30	

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* The engineer placement is carried out in the continuity of the «assistant engineer placement» at the end of the semester 8 and generally in the same company.

Exchange students coming at Polytech Lille for a full academic year may dedicate the semester 9 to the courses and the semester 10 to a 5 month-internship in a company supervised by Polytech Lille or a full-time project in a research laboratory of civil engineering at Polytech Lille.