

## Study Programme 2015-2016

### Civil Engineering

#### Semester 5

Course	Lec.	LwT	Tut.	Prac.	Project	Course Hours	Student Hours	ECTS Credits	Code
<b>Unit 5.1 Upgrading courses (tutorials)</b>							<b>26</b>		
Mathematics or Civil Engineering Technology		26				26	26		211020
<b>Unit 5.2 Mechanical Engineering</b>							<b>80</b>	<b>7,5</b>	
Structural Design 1	20		28	6		54	54	5	211110
Continuum Mechanics 1		26				26	26	2,5	211120
<b>Unit 5.3 Computing and Mathematics</b>							<b>104</b>	<b>8,5</b>	
Computing		14		4	24	42	42	3,5	211220
Mathematics 1	20		26			46	46	4	211230
Computer-Aided Design (CAD)				16		16	16	1	211240
<b>Unit 5.4 Geology for Engineers, Materials and Process</b>							<b>85</b>	<b>7,5</b>	
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
<b>Unit 5.5 Sport and Soft Skills 1</b>							<b>60</b>	<b>3,5</b>	
Career Planning			10			10	10	0,75	211410
Corporate Communication			10			10	10	0,75	211420
Sport			22			22	22	0,75	211430
Economic environment	12		6			18	18	1,25	211440
<b>Unit 5.6 Languages</b>							<b>46</b>	<b>3</b>	
English			26			26	26	2	211510
Second language									
-> German			20			20	20	1	211530
-> Spanish			20			20	20	1	211540
-> French			20			20	20	1	211550
Remedial English (TOEIC test)			15			15	15	0	211560
<b>Total :</b>							<b>401</b>	<b>30</b>	

Lect. : Lecture

LwT : Lecture with Tutorial

Tut. : Tutorial

Prac. : Practical

**Note :**

According to the timetable,  
the personal work of the student for all the Units of the semester  
is between 10 and 20 hours every week.

## Study Programme 2015-2016

### Civil Engineering

#### Semester 6

Course	Lec.	LwT	Tut.	Prac.	Project	Course Hours	Student Hours	ECTS Credits	Code
<b>Unit 6.1 Civil Works and Structures</b>							<b>105</b>	<b>8</b>	
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
<b>Unit 6.2 Geology and Geotechnics</b>							<b>107</b>	<b>8,5</b>	
Geology for Engineers 2	8		6	13	16	43	43	3,5	212110
Earthworks	14		6			20	20	1,5	212120
Geotechnics 1	12		20	12		44	44	3,5	212130
<b>Unit 6.3 Materials and Dimensioning of Structures</b>							<b>116</b>	<b>9</b>	
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								1,5	
<b>Unit 6.4 Sport and Soft skills</b>							<b>32</b>	<b>1,5</b>	
Corporate Communication			10			10	10	0,75	212430
Sport			22			22	22	0,75	212440
<b>Unit 6.5 Languages</b>							<b>42</b>	<b>3</b>	
English			22			22	22	2	212510
Second language									
-> German	20		20			40	20		212530
-> Spanish			20			20	20		212540
-> French			20			20	20		212550
Remedial English (TOEIC test)			18			18	18		212560
<b>Industrial Placement ( 4 weeks during the summer)</b>									
<b>Total :</b>							<b>402</b>	<b>30</b>	

Lect. : Lecture  
LwT : Lecture with Tutorial  
Tut. : Tutorial  
Prac. : Practical

**Note :**  
According to the timetable,  
the personal work of the student for all the Units of the semester  
is between 10 and 20 hours every week.

## Study Programme 2015-2016

### Civil Engineering

#### Semester 7

Course	Lec.	LwT	Tut.	Prac.	Project	Course Hours	Student Hours	ECTS Credits	Code
<b>Unit 7.1 Digital tools</b>							<b>76</b>	<b>5</b>	
Finite Elements	14		14	20		48	48	3	213110
Numerical Analysis	6		10	12		28	28	2	213120
<b>Unit 7.2 Dimensioning of structures 1</b>							<b>94</b>	<b>7</b>	
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
<b>Unit 7.3 Soil and Rock Science 1</b>							<b>72</b>	<b>6</b>	
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
<b>Unit 7.4 Soft skills 1</b>							<b>118</b>	<b>9</b>	
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	14		12		26	52	52	4,25	213430
Management	10					10	10	0,75	213440
Public Works Contract Management	12					12	12	1	213450
Introduction to Research	2				8	10	10	0,75	213460
<b>Unit 7.5 Languages</b>							<b>42</b>	<b>3</b>	
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 (TOEIC test)			18			18	18	0	213560
<b>Total :</b>							<b>402</b>	<b>30</b>	

Lect. : Lecture

LwT : Lecture with Tutorial

Tut. : Tutorial

Prac. : Practical

**Note :**

According to the timetable,  
the personal work of the student for all the Units of the semester  
is between 10 and 20 hours every week.

## Study Programme 2015-2016

### Civil Engineering

#### Semester 8

Course	Lec.	LwT	Tut.	Prac.	Project	Course Hours	Student Hours	ECTS Credits	Code
<b>Unit 8.1 Dimensioning of Structures 2</b>							<b>114</b>	<b>9</b>	
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
<b>Unit 8.2 Soil and Rock Science 2</b>							<b>108</b>	<b>7,5</b>	
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	214230
Geographic Information System	6		6			12	12	1	214240
<b>Unit 8.3 Languages</b>							<b>42</b>	<b>3</b>	
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 (TOEIC test)			18			18	18	0	214370
<b>Unit 8.4 Soft Skills</b>							<b>56</b>	<b>3,5</b>	
Building Law	14					14	14	0,75	214420
Project Management	14					14	14	1	214430
Management of private building markets	12					12	12	1	214440
Sustainable Development	4					4	4		214450
Marketing	12					12	12	0,75	214460
<b>Unit 8.5 Assistant Engineer Placement (starting at the end of April Minimum of 6 weeks)</b>							<b>80</b>	<b>7</b>	<b>214510</b>
<b>Total :</b>							<b>400</b>	<b>30</b>	

Lect. : Lecture  
LwT : Lecture with Tutorial  
Tut. : Tutorial  
Prac. : Practical

**Note :**  
According to the timetable,  
the personal work of the student for all the Units of the semester  
is between 10 and 20 hours every week.

## Study Programme 2015-2016

### Civil Engineering

#### Semester 9

Course	Lec.	LwT	Tut.	Prac.	Project	Course Hours	Student Hours	ECTS Credits	Code
<b>Unit 9.1 Advanced Courses in Civil Engineering</b>							<b>117</b>	<b>8,25</b>	
Sustainable Construction	9					9	9	0,75	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 Constructin	12		12			24	24	1,75	215160
Geographic Information Systems	8		8	8		24	24	1,75	215170
<b>Unit 9.2 Workshops / Projects</b>							<b>123</b>	<b>12</b>	
<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
<b>Unit 9.3 Soft skills and cross-disciplinary modules</b>							<b>110</b>	<b>6,75</b>	
<i>2 modules to be chosen from the following list *</i>									
Corporate Management	14		16			30	30	2	215310
Team Management and Change Management	24					24	24	1,75	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
<b>Unit 9.4 Languages</b>							<b>52</b>	<b>3</b>	
English			20			20	20	1,75	215410
Second language								1	
-> German			20			20	20	1	215440
-> Spanish			20			20	20	1	215450
-> French			20			20	20		215460
-> Professional language (choice between English or the Second foreign language)			12			12	12	0,5	215470
<b>Total :</b>							<b>402</b>	<b>30</b>	

Lect. : Lecture  
LwT : Lecture with Tutorial  
Tut. : Tutorial  
Prac. : Practical

**Note :**  
According to the timetable,  
the personal work of the student for all the Units of the semester  
is between 10 and 20 hours every week.

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

## Study Programme 2015-2016

### Civil Engineering

#### Semester 10

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

Lect. : Lecture

LwT : Lecture with Tutorial

Tut. : Tutorial

Prac. : Practical

**Note :**

According to the timetable,  
the personal work of the student for all the Units of the semester  
is between 10 and 20 hours every week.

\* 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.