

First Year

Compulsory courses

ARCH0005-1	<i>Architecture I</i>	30	40	-	4,5
DROI0724-2	<i>law and engineering</i> - Pascale LECOCQ	15	-	-	2
GCIV0002-1	<i>General Hydraulics, Hydrodynamics & Aerodynamics</i> - André LEJEUNE	45	52	-	7
GCIV0013-1	<i>Construction Material and Concrete Technology</i> - N...	55	35	-	7,5
GCIV0030-2	<i>Hyperstatic Structures</i>	40	60	-	7
GCIV0032-5	<i>Surveying</i> - Roland BILLEN	20	-	-	2
GCIV0046-1	<i>Soil Mechanics and Rock Mechanics Basics</i> - Albert BOLLE	35	35	-	4,5
GCIV0050-1	<i>Introduction to Civil Engineering Techniques and Structures</i> - Jean-Pierre JASPART	20	40	-	3,5
GCIV0143-1	<i>Civil Engineering Logistics</i>	15	25	-	2,5
GEOL0001-1	<i>Geology and Geology for Engineers</i> - Alain DASSARGUES - [2d FW]	35	25	[+]	5
MECA0012-6	<i>Mechanics of materials (english)</i> - Serge CESCOTTO	50	60	-	8
MECA0019-1	<i>Heat Transfers</i> - Michel HOGGE	20	20	-	3
META0002-3	<i>Metallic Materials</i> - Jean-Pierre COHEUR	30	12	-	3,5

Training programme of a minimum three weeks in a business, management office or research department. This can be carried out during the end of each educational year and will be evaluated by a training report.

Second Year

Compulsory courses

ARCH0015-1	<i>Architecture II (Including the History of Building)</i> - Jean-Marie HAUGLUSTAINE	25	35	-	4
GEST0106-1	<i>Elements of Corporate Management</i> - Pierre-Armand MICHEL	30	-	-	3
GCIV0007-1	<i>Reinforced and Pre-Stressed Concrete</i> - Jean-Claude DOTREPPE - [0,5d FW]	60	40	[+]	8
GCIV0017-1	<i>Hydraulic Constructions</i> - André LEJEUNE	50	30	-	6,5
<i>Notice : Including Two days theoretical study</i>					
GCIV0026-1	<i>Applied Hydraulics I</i> - Michel PIROTON	35	35	-	5
GCIV0034-1	<i>Hydraulic Work and Road Geotechnics</i> - Albert BOLLE	20	10	-	2,5
GCIV0043-1	<i>Foundations and Retaining Works</i> - Robert CHARLIER - [1d FW]	30	35	[+]	4,5
GCIV0060-1	<i>Steel and Composite Constructions I</i> - Jean-Pierre JASPART - [3d FW]	50	75	[+]	8
GCIV0086-1	<i>Structure Design and Execution</i> - Jean-Marc FRANSSSEN	20	10	-	2,5
GCIV0185-1	<i>Numerical methods in Civil and Geological Engineering - I. Linear methods, Linear methods</i> - Hervé DEGÉE, Michel PIROTON	25	25	-	4
GCIV0165-1	<i>Wood Construction</i> - Jean-Marc FRANSSSEN	20	10	-	2,5

Optional courses

One orientation chosen from the following three :

Orientation Hydraulics

GCIV0089-1	<i>Applied Hydraulics II</i> - Michel PIROTON	30	25	-	4,5
GCIV0119-1	<i>General Hydraulics II</i> - André LEJEUNE	15	15	-	2,5
MECA0014-2	<i>Introduction to Hydraulic machines and Compressors</i> - Olivier LÉONARD	20	15	-	2,5

Orientations Constructions

GCIV0087-1	<i>Further Study of Pre-Stressed Concrete</i> - Jean-Claude DOTREPPE	-	20	-	1
GCIV0131-1	<i>Steel and Composite Constructions II</i> - Jean-Pierre JASPART	15	15	-	2,5
GCIV0132-1	<i>Dynamic & Seismic Structural Loading Calculation</i> - Hervé DEGÉE	20	10	-	2,5
GCIV0150-1	<i>Thin-Walled Structures</i> - Jean-Pierre JASPART, Jacques RONDAL	20	10	-	2,5
MECA0133-1	<i>Welding</i> - N...	10	-	-	1

Orientation Transport and Infrastructure

GCIV0044-1	<i>Land Transport Infrastructure Gauging</i> - Albert BOLLE	20	10	-	2,5
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GCIV0058-1	<i>Transport and Traffic Modelling & Simulation</i> - Alassane-Ballé NDIAYE	30	30	-	4,5
GCIV0146-2	<i>Technical Economic Analysis of Transport Systems</i> - Jean MARCHAL	20	10	-	2,5

Third Year

Compulsory courses

ATFE0001-1	<i>Travail de fin d'études</i>	-	-	-	20
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Three possibilities are available :

- * End of Study work project carried out at the University of Liège based on suggestions made by department students.
- * End of Study work project carried out at a university abroad based on suggestions made jointly by those responsible at the university abroad and a Liège based supervisor (financial aid possible through the SOCRATES programme).
- * End of Study work project combined with industrial training, in Belgium or abroad (financial aid possible through the LEONARDO programme if the work is carried out abroad).

Optional courses

Continuing the Orientation chosen in year 2 :

Orientation Hydraulics

GCIV1001-1	<i>modelling of water movements[BR] - management of water resources [BR] - modelling and planning of water outflow [BR] - Hydrology</i>				10
	- <i>Gestion des ressources hydrauliques</i> - Michel PIROTON	30	-	-	
	- <i>Modélisation et aménagement des écoulement hydrauliques</i> - André LEJEUNE - [2d14 FW]		-	[+]	
	- <i>Hydrologie</i> - Michel PIROTON	15	15	-	

Choose one of the following modules :

GCIV1004-1	<i>River engineering - Waterways - Project of waterways, locks, mobile dams, reservoir dams - Concrete dams</i>				10
	- <i>Voies navigables</i> - Michel PIROTON	30	-	-	
	- <i>Projet de voie navigable, écluse, barrage mobile, barrage fixe</i> - Michel PIROTON	-	50	-	
	- <i>Barrages fixes en béton</i> - Michel PIROTON	10	-	-	
GCIV1005-1	<i>Constructions of sea engineering[BR] - Sanitation (in streams, rivers and coastal areas)[BR] - Issues related to harbours and coastal areas[BR] - Project in sea and harbour engineering</i>				10
	- <i>Assainissement (en rivières et zones côtières)</i> - Michel PIROTON	20	-	-	
	- <i>Questions portuaires et côtières</i> - Jean MARCHAL	20	-	-	
	- <i>Projet de génie maritime et portuaire</i> - Jean MARCHAL	-	50	-	

Orientation Construction

GCIV1002-1	<i>modelling of superstructures[BR] - Non linear calculation of civil engineering structures[BR] - Tridimensional structures [BR] - Optimal dimensions for civil engineering structures</i>				10
	- <i>Calcul non linéaire des structures du génie civil</i> - Vincent DE VILLE DE GOYET	30	-	-	
	- <i>Structures tridimensionnelles</i> - Hervé DEGÉE	15	15	-	
	- <i>Dimensionnement optimal des structures du génie civil</i> - Jacques RONDAL	20	10	-	

Choose one of the following modules :

GCIV1006-1	<i>Buildings (including 1jtt)[BR] - Computing and developing of fire-exposed structures [BR] - Project work on buildings [BR] - Parasismic conception</i>				10
	- <i>Calcul et conception des structures soumises à l'incendie</i> - Jean-Claude DOTREPPE, Jean-Marc FRANSSSEN	10	10	-	
	- <i>Projet de bâtiments</i> - Jean-Claude DOTREPPE	-	50	-	
	- <i>Conception parasismique</i> - André PLUMIER	12	8	-	
GCIV1007-1	<i>Bridges (including 2jtt)[BR] - Drafting and building of bridges [BR] - Project work on bridges</i>				10

- Conception et exécution des ponts - Jean-Marie CREMER	40	-	-
- Projet de pont - Jean-Marie CREMER, Jean-Claude DOTREPPE	-	50	-

Orientation Transport and Infrastructure

GCIV1003-1	<i>modelling of infrastructures[BR] - modelling of behaviour of geomaterials [BR] - Probabilistic approach to recognition and simulation [BR] - Non linear applications of finite elements in underground environment</i>			10
	- Modélisation du comportement des géomatériaux - Robert CHARLIER, Frédéric COLLIN	10	10	-
	- Approche probabiliste en reconnaissance et simulation - Albert BOLLE	20	10	-
	- Applications non linéaires des éléments finis en milieu souterrain - Robert CHARLIER, Frédéric COLLIN	20	20	-

Choose one of the following modules :

GCIV1008-1	<i>Logistics of transport[BR] - Organisation and drafting of surface networks [BR] - Logistics as applied to transport infrastructures [BR] - Drafting of a transport scheme [BR] - Project work on transport</i>			10
	- Organisation et conception des réseaux de surface - Philippe HANOCQ	10	-	-
	- Logistique appliquée aux infrastructures de transport - Jacques RONDAL	15	-	-
	- Etablissement d'un plan de transport - Jean MARCHAL	15	-	-
	- Projet de transport - Jean MARCHAL, N..., Jacques RONDAL	-	50	-
GCIV1009-1	<i>Infrastructure work[BR] - Mechanics of rocks and underground works [BR] - project work on infrastructure[BR] - mathematical modelling of ourflow around underground works</i>			10
	- Mécanique des roches et ouvrages souterrains - Robert CHARLIER	30	-	-
	- Projet d'infrastructure - Albert BOLLE, Robert CHARLIER	-	50	-
	- Modélisation mathématique des écoulements autour des ouvrages souterrains - Alain DASSARGUES	10	-	-

Advanced and widened education

Choose one module from the following, other than that chosen for the orientation programme :

GCIV1004-1	<i>River engineering - Waterways - Project of waterways, locks, mobile dams, reservoir dams - Concrete dams</i>			9
	- Voies navigables - Michel PIROTON	30	-	-
	- Projet de voie navigable, écluse, barrage mobile, barrage fixe - Michel PIROTON	-	50	-
	- Barrages fixes en béton - Michel PIROTON	10	-	-
GCIV1005-1	<i>Constructions of sea engineering[BR] - Sanitation (in streams, rivers and coastal areas)[BR] - Issues related to harbours and coastal areas[BR] - Project in sea and harbour engineering</i>			9
	- Assainissement (en rivières et zones côtières) - Michel PIROTON	20	-	-
	- Questions portuaires et côtières - Jean MARCHAL	20	-	-
	- Projet de génie maritime et portuaire - Jean MARCHAL	-	50	-
GCIV1006-1	<i>Buildings (including 1jtt)[BR] - Computing and developing of fire-exposed structures [BR] - Project work on buildings [BR] - Parasismic conception</i>			9
	- Calcul et conception des structures soumises à l'incendie - Jean-Claude DOTREPPE, Jean-Marc FRANSSSEN	10	10	-
	- Projet de bâtiments - Jean-Claude DOTREPPE	-	50	-
	- Conception parasismique - André PLUMIER	12	8	-
GCIV1007-1	<i>Bridges (including 2jtt)[BR] - Drafting and building of bridges [BR] - Project work on bridges</i>			9
	- Conception et exécution des ponts - Jean-Marie CREMER	40	-	-
	- Projet de pont - Jean-Marie CREMER, Jean-Claude DOTREPPE	-	50	-
GCIV1008-1	<i>Logistics of transport[BR] - Organisation and drafting of surface networks [BR] - Logistics as applied to transport infrastructures [BR] - Drafting of a transport scheme [BR] - Project work on transport</i>			9
	- Organisation et conception des réseaux de surface - Philippe HANOCQ	10	-	-
	- Logistique appliquée aux infrastructures de transport - Jacques RONDAL	15	-	-
	- Etablissement d'un plan de transport - Jean MARCHAL	15	-	-
	- Projet de transport - Jean MARCHAL, N..., Jacques RONDAL	-	50	-
GCIV1009-1	<i>Infrastructure work[BR] - Mechanics of rocks and underground works [BR] - project work on infrastructure[BR] - mathematical modelling of ourflow around</i>			9

underground works

- Mécanique des roches et ouvrages souterrains - Robert CHARLIER	30	-	-
- Projet d'infrastructure - Albert BOLLE, Robert CHARLIER	-	50	-
- Modélisation mathématique des écoulements autour des ouvrages souterrains - Alain DASSARGUES	10	-	-

Choose two modules from :

GCIV1010-1	<i>Materials and processes involved in buildings [BR] - Processes involved in building with non metal materials [BR] - Processes involved in building with wood[BR] - Integrated management of quality and conformity on building sites [BR] - Application workshops on processes involved in building</i>				5
	- Procédés d'exécution de constructions en matériaux non métalliques - Luc COURARD, Jean-Marie RIGO	15	-	-	
	- Procédés d'exécution de constructions en bois - Jean-Marc FRANSEN	10	-	-	
	- Gestion intégrée de la qualité et de la conformité sur chantier - Jean-Marie RIGO	5	-	-	
	- Ateliers d'applications sur les procédés d'exécution des constructions - Luc COURARD, Jean-Marc FRANSEN, Jean-Marie RIGO	30	-	-	
GCIV1011-1	<i>Restoration and protection of buildings [BR] - pathology of materials and constructions[BR] - pathology and restoration of structural type [BR] - Maintenance, restoration and protection of buildings[BR] - Techniques and methods for destruction of civil engineering worksl</i>				5
	- Pathologie des matériaux et des constructions - Luc COURARD, N...	10	-	-	
	- Pathologie et réparations de type structurel - André PLUMIER	15	-	-	
	- Entretien, restauration et protection des constructions - Luc COURARD	25	-	-	
	- Techniques et méthodes de démolition des ouvrages du génie civil - Jacques RONDAL	10	-	-	
GCIV1012-1	<i>Civil engineering and environment[BR] - Source of pollutants. Prevention and processing techniques (water, solid waste)[BR] - Study of the impact of built areas on surface water [BR] - Valorisation of waste and industrial byproducts in engineering [BR] - Geomaterials, environment and technical landfill burial sites [BR] - Workshops related to interaction between civil engineering and environment</i>				5
	- Source des polluants. Techniques de prévention et de traitement (eau, déchets solides) - N...	15	-	-	
	- Etude d'impact des constructions sur les eaux de surface - Michel PIROTON	10	-	-	
	- Valorisation des déchets et sous-produits industriels en génie civil - Luc COURARD	10	-	-	
	- Géomatériaux, environnement et sites d'enfouissement technique - Jean-Marie RIGO	20	-	-	
	- Séminaires relatifs à l'interaction génie civil - environnement - André LEJEUNE, Jean-Marie RIGO - [5h SEM]	-	-	-	[+]

Voyage de fin d'études : Visites d'ouvrages d'art (facultatif).