

#### Cycle view of the study programme

B1 Or Th Pr Au Cr

Depending on your educational background or depending on the focus, it is possible that the prerequisites / corequisites for the 1st year of the programme are presented in the block 2. You are therefore invited to read through the list of courses in block 2 even if you are registering for the first time in this master.

#### Compulsory courses (B1 : 60Cr, B2 : 30Cr)

ARCH2007-2	<i>Environmental design of buildings in the context of sustainable development</i> - AnneFrançoise MARIQUE, Sigrid REITER - [2d FW, 40h Proj.]	B1	Q1	15	30	[+]	4
	<b>Corequisite :</b> ARCH0115-1 - Ateliers d'architecture IV						
ARCH0115-1	<i>Architectural studio IV, integrated conception</i> - Pierre LECLERCQ - [1d FW, 88h Proj.]	B1	Q1	20	130	[+]	10
	<b>Corequisite :</b> ARCH0075-3 - Studio Digital Collaboratif & BIM ARCH2007-2 - Conception architecturale et urbaine durable						
GCIV0201-2	<i>Concretes and new Materials Technologies</i> - Luc COURARD - [0,5d FW, 6h Labo., 8h Proj.]	B1	Q1	32	20	[+]	5
ARCH0027-2	<i>Conservation and Restoration of Cultural Built Heritage</i> - Pierre PAQUET - [1d FW]	B1	Q1	30	-	[+]	3
DROI8041-4	<i>Property law, Notions de droit immobilier</i> - Pascale LECOCQ	B1	Q2	15	-	-	2
ARCH3271-1	<i>Introduction to scientific research</i> - Mario COOLS, Pierre LECLERCQ - [30h Proj.]	B1	Q2	10	10	[+]	2
ARCH2009-1	<i>General aesthetics and its application to architecture</i> - Rudy STEINMETZ	B1	Q2	45	15	-	4
ELEN0443-2	<i>Acoustics and lighting of buildings</i> - Introduction - JeanJacques EMBRECHTS - Methods and applications - JeanJacques EMBRECHTS - [16h Proj.]	B1	Q2	15	14	-	5
				15	10	[+]	
ARCH0080-1	<i>Building physics and air conditioning</i> - Philippe ANDRE	B1	Q2	30	30	-	5
ARCH2011-1	<i>Sustainable building construction techniques IV : Building renovation</i> - Michel PRÉGARDIEN - [2d FW]	B1	Q2	15	15	[+]	4
	<b>Corequisite :</b> ARCH0027-2 - Conservation et restauration du patrimoine culturel immobilier						
GCIV2063-1	<i>Planning buildings, co-ordination and safety on building sites</i> - Fabian BOUCHER - [1d FW]	B1	Q1	15	15	[+]	2
ARCH2003-1	<i>Urbanisation dynamics</i> - Jacques TELLER - Suppl : Joël PRIVOT - [65h Proj.]	B1	Q1	26	26	[+]	5
ARCH0075-3	<i>Studio Digital Collaboratif &amp; BIM</i> - Aurélie DE BOISSIEU, Pierre LECLERCQ - [1d FW, 78h Proj.]	B1	Q2	15	45	[+]	6
	<b>Corequisite :</b> ARCH0115-1 - Ateliers d'architecture IV						
GCIV2052-1	<i>Urban and transport mobility (english language)</i> - Mario COOLS - [2d FW]	B1	Q2	25	25	[+]	3
ARCH0116-3	<i>Architectural studio V: integrated project</i> - Catherine ELSEN - [1d FW, 150h Proj.]	B2	Q2	-	100	[+]	10
	<b>Prerequisite :</b> GCIV2052-1 - Urban and transport mobility ARCH0115-1 - Ateliers d'architecture IV						
ATFE0009-1	<i>Master thesis / project</i> - COLLÉGIALITÉ, Pierre LECLERCQ - [600h Proj.]	B2	TA	-	-	[+]	20

*Notice* : Cycle of conferences on the professional competences of the engineer/architect (code of ethics, organising real estate operations, public procurement, etc.): compulsory attendance (Block 1)

*Notice* : Study trip: guided tours on architectural and urbanistic achievements (optional)

*Notice* : Cycle of conferences on the professional competences of the engineer/architect (code of ethics, organising real estate operations, public procurement, etc.): compulsory attendance (Block 2)

#### Optional courses (B2 : 30Cr)

Choose one focus from the following : (B2 : 30Cr)

##### Professional focus in architectural and urban engineering (B2 : 30Cr)

ARCH0065-2	<i>Design Process Analysis</i> - Pierre LECLERCQ - [18h Proj.]	B2	Q2	15	30	[+]	3
GCIV0165-1	<i>Timber constructions, Part A</i> (english language) - JeanMarc FRANSSSEN	B2	Q1	20	10	-	2
GCIV2179-1	<i>Transportation planning and modelling</i> (english language) - Mario COOLS - [30h Proj.] <b>Corequisite :</b> GCIV2052-1 - Urban and transport mobility	B2	Q1	15	15	[+]	3
ARCH2019-1	<i>Engineering of urban environments</i> - Sigrid REITER - [60h Proj.] <b>Prerequisite :</b> ARCH2007-2 - Conception architecturale et urbaine durable	B2	Q1	18	36	[+]	5
ARCH2018-1	<i>Urban and territorial governance</i> - Christophe BREUER - Suppl : Christine RUELLE	B2	Q1	20	-	-	2
ARCH3274-1	<i>User-centred approaches to architecture and engineering</i> - Catherine ELSSEN - [30h Proj., 1d FW]	B2	Q2	10	10	[+]	2
SPOL2209-3	<i>Environmental and land policies</i> - Sophie HANSON	B2	Q1	30	-	-	2
ARCH3272-1	<i>Building performance simulation and monitoring</i> (english language) - Shady ATTIA - [70h Proj.] <b>Prerequisite :</b> ARCH0080-1 - Physique du bâtiment et climatisation	B2	Q1	30	40	[+]	5
GCIV0133-9	<i>Maintenance, repair and reinforcement of constructions</i> (english language) - Luc COURARD - [1d FW] <b>Prerequisite :</b> GCIV0201-2 - Technologie des bétons et matériaux nouveaux	B2	Q1	20	20	[+]	3
ASTG9002-1	<i>Professional internship</i> - Shady ATTIA - [20d FW, 20h Proj.]	B2	TA	-	-	[+]	3

A visit to a business (optional).

Annual study trip : guided tours on architectural and urbanistic achievements (optional).

Final year trip: at the beginning of the academic year, prior to course organisation, guided tours of architectural and urbanistic achievements (optional).

Cycle of conferences on the professional competences of the engineer/architect (code of ethics, organising real estate operations, public procurement, etc.): compulsory attendance.

##### Professional focus in "urban and environmental engineering" (B2 : 30Cr)

UEEN0001-1	<i>Water and energy in urban environment</i> (english language) - Pierre DEWALLEF, Benjamin DEWALS - [2d FW]	B2	Q1	26	26	[+]	5
UEEN0002-1	<i>Urban recycling : land and wastes</i> (english language) - Serge BROUYÈRE, Luc COURARD - [10h Labo., 20h Proj., 2d FW]	B2	Q1	20	10	[+]	5
UEEN0003-1	<i>Resilience and constructions in urban areas</i> (english language) - Sigrid REITER - [60h Proj., 1d FW]	B2	Q1	12	12	[+]	5
UEEN0004-1	<i>Urban planning and transportation</i> (english language) - Mario COOLS, Mario COOLS - [1d FW]	B2	Q1	26	26	[+]	5
UEEN0005-1	<i>Urban sociology and co-design</i> (english language) - Stéphane DAWANS, Catherine ELSSEN - [20h Proj., 1d FW]	B2	Q1	20	10	[+]	2
UEEN0006-1	<i>UEE project</i> (english language) - Shady ATTIA, Frédéric NGUYEN, Philippe RIGO - [100h Proj., 1d FW]	B2	Q1	-	90	[+]	8

#### Optional courses

A visit to a business (optional).

Final year trip: at the beginning of the academic year, prior to the organisation of the courses, guided tours to companies, geological sites (optional).

#### Additional courses for Erasmus students (B2 : 14Cr)

LANG0840-1	<i>French, S1 - 1er quadrimestre</i> - ISLV, Marielle MARÉCHAL	B2	Q1	-	-	-	5
LANG0840-2	<i>French, S2 - 2e quadrimestre</i> - ISLV, Marielle MARÉCHAL	B2	Q2	-	-	-	5
GCIV0008-2	<i>Design techniques and development of integrated and sustainable projects in transport and mobility (english language)</i> - Mario COOLS - [25h Proj.]	B2	Q1	30	15	[+]	4

**Additional credits, Master of Science (MSc) in Architectural Engineering (aimed at Bachelors and qualified engineers - in particular students from the "Institut Mines Telecom d'Alès", from the "Ecole d'Ingénieurs de La Rochelle, de Polytech Lille", from the "Institut de Technologie du Cambodge" and from the "EPF Troyes, Sceaux, Montpellier").**

#### Compulsory courses (B0 : 60Cr)

*Notice* : this programme is likely to be adjusted according to skills previously acquired by the student.

ARCH0002-1	<i>Methodology of Architectural Projects I : functional and ergonomical composition</i> - Catherine ELSEEN, Pierre LECLERCQ - [1d FW, 100h Proj.]	B0	TA	30	60	[+]	8
ARCH3270-1	<i>Architectural studio IA : Graphic Composition</i> - Catherine ELSEEN - Suppl : Olivier DE WISPELAERE - [1d FW, 35h Proj.]	B0	Q1	10	30	[+]	3
ARCH0066-2	<i>Architectural studio IB: architectural composition</i> - Catherine ELSEEN - [1d FW, 25h Proj.]	B0	Q2	10	40	[+]	4
ARCH0006-2	<i>Methodology of Architectural Projects II : bioclimatic composition</i> - Pierre LECLERCQ - [1d FW, 85h Proj.]	B0	TA	40	50	[+]	8
ARCH0068-7	<i>Urban planning and site analysis, Theory</i> - Jacques TELLER - Suppl : Ngoc Luan NGUYEN	B0	Q1	15	20	-	2
ARCH0017-4	<i>Digital architectural modeling</i> - Aurélie DE BOISSIEU, Pierre LECLERCQ - [98h Proj.]	B0	Q2	20	70	[+]	6
ARCH0221-1	<i>Historical aspects of the construction of Antiquity at the start of the 19th century</i> - Philippe SOSNOWSKA	B0	Q1	48	-	-	4
ARCH3260-2	<i>Architectural studio II, Introduction</i> - Catherine ELSEEN - [1d FW, 85h Proj.]	B0	TA	20	70	[+]	7
ARCH3262-1	<i>Architectural studio III A</i> - Shady ATTIA - [1d FW, 55h Proj.]	B0	Q1	10	35	[+]	5
ARCH3263-1	<i>Architectural studio III B</i> - Sigrid REITER - [1d FW, 55h Proj.]	B0	Q2	10	35	[+]	4
GCIV2030-2	<i>Structural Design of Buildings</i> - JeanMarc FRANSSSEN - [40h Proj.]	B0	Q2	15	30	[+]	4
ARCH3281-1	<i>Summary of construction practices in the building industry</i> - Pierre LECLERCQ - [1d FW, 30h Proj.]	B0	Q1	7	45	[+]	5

**Additional ECTS Master of science in architecture and engineering (aimed at bachelors in architecture)**

#### Compulsory courses (B0 : 60Cr)

*Notice* : this programme is likely to be adjusted according to skills previously acquired by the student.

MATH7371-1	<i>Mathematics supplements 1</i> - Patricia TOSSINGS	B0	Q1	18	34	-	<b>5</b>
MATH0066-1	<i>Complement of mathematics 2</i> - Patricia TOSSINGS	B0	Q2	26	26	-	<b>4</b>
ARCH0006-2	<i>Methodology of Architectural Projects II : bioclimatic composition</i> - Pierre LECLERCQ - [1d FW, 85h Proj.]	B0	TA	40	50	[+]	<b>8</b>
MECA0001-2	<i>Mechanics of materials</i> - JeanPierre JASPART - [2h Labo., 12h Proj.]	B0	Q1	27	25	[+]	<b>5</b>
MECA0012-6	<i>Solid mechanics</i> - Laurent DUCHENE - [15h Proj.]	B0	Q2	26	26	[+]	<b>5</b>
GCIV0184-5	<i>Building Materials</i> - Luc COURARD, Anne HABRAKEN - [0,5d FW, 12h Labo., 12h Proj.]	B0	Q2	36	16	[+]	<b>5</b>
GCIV2172-1	<i>Metallic Elements Calculation</i> - JeanPierre JASPART - [1d FW, 10h Proj.]	B0	Q2	26	26	[+]	<b>5</b>
GCIV2173-1	<i>Reinforced concrete</i> (english language) - Boyan MIHAYLOV - [1d FW, 10h Proj.]	B0	Q2	26	26	[+]	<b>5</b>
ARCH0017-4	<i>Digital architectural modeling</i> - Aurélie DE BOISSIEU, Pierre LECLERCQ - [98h Proj.]	B0	Q2	20	70	[+]	<b>8</b>
ARCH0079-1	<i>Sustainable building construction techniques II : envelope</i> - Shady ATTIA - [40h Proj.]	B0	Q1	15	30	[+]	<b>5</b>
GCIV0608-1	<i>Introduction to Structures engineering</i> - JeanFrançois DEMONCEAU, Vincent DENOËL, JeanMarc FRANSSSEN - [4d FW, 40h Proj.]	B0	Q1	12	12	[+]	<b>5</b>