

Faculty of Applied Sciences

Master MSc. in Architectural Engineering, professional focus in architectural and urban engineering

Block view of the study programme

Or Th Pr Au Cr

Block 1

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.

Core curriculum compulsory courses

ARCH2007-2	Environmental design of buildings in the context of sustainable development - AnneFrançoise MARIQUE, Sigrid REITER - [2d FW, 40h Proj.] Corequisite: ARCH0115-1 - Ateliers d'architecture IV	Q1	15	30	[+]	4
ARCH0115-1	Architectural studio IV, integrated conception - Catherine ELSEN - [1d FW, 88h Proj.] Corequisite: ARCH2007-2 - Conception architecturale et urbaine durable ARCH0075-3 - S3C: Studio de Conception Computationnelle Collaborative	Q1	20	130	[+]	10
GCIV0201-2	Concretes and new Materials Technologies - Luc Courard - [0,5d FW, 6h Labo., 8h Proj.]	Q1	32	20	[+]	5
ARCH3333-1	Existing constructions - Intervention principles - Maurizio COHEN, Claudine HOUBART	Q2	40	-	-	3
ARCH3271-1	Introduction to scientific research - Mario Cools - [30h Proj.]	Q2	10	10	[+]	2
PHIL0076-1	Aesthetics and contemporary art - Maud HAGELSTEIN	Q2	30	-	-	3
ARCH3283-1	Acoustics and lighting of buildings - Introduction - Arnaud THIENPONT - Methods and applications - Arnaud THIENPONT - [16h Proj.]	Q1	15 15	14 10	- [+]	5
ARCH2011-1	Sustainable building construction techniques IV : Building renovation - Guirec RUELLAN - [2d FW]	Q2	15	15	[+]	3
GCIV2063-1	Planning buildings, coordination and safety on building sites (english language) - Fabian BOUCHER - [1d FW]	Q1	15	15	[+]	2
ARCH2003-1	Urbanisation dynamics - Jacques Teller - [65h Proj.]	Q2	26	26	[+]	5
ARCH0075-3	S3C: Collaborative Computational Design Studio - Aurélie DE BOISSIEU - [1d FW, 78h Proj.] Corequisite: ARCH0115-1 - Ateliers d'architecture IV	Q2	15	45	[+]	7
ASTG9002-1	Professional internship - Shady Attia - [20d FW, 20h Proj.]	TA	-	-	[+]	3
ARCH3336-1	Setting up real-estate operations - Mathurin SMOOS	Q2	32	-	-	3
MECA0512-1	Thermodynamics, machines and thermal systems: applications in the building sector - Vincent LEMORT - [1d FW]	Q2	26	26	[+]	5

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

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

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).

Block 2

Core curriculum compulsory courses

ARCH0116-3 Architectural studio V: integrated project - Jacques Teller - [1d FW, 150h Q2 - 100 [+] 10 Proj.]

Corequisite:



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Master MSc. in Architectural Engineering, professional focus in architectural and urban engineering ARCH0115-1 - Ateliers d'architecture IV

Master thesis / project - COLLÉGIALITÉ, Mario COOLS - [600h Proj.] ATFE0009-1 TA -[+] 20

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

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

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).

> Notice: with the agreement of the President of the jury, students can also choose a course from catalogue UNIC.

Additional courses for Erasmus students

LANG0840-1	French, S1 - 1er quadrimestre - ISLV, Marielle MARÉCHAL	Q1	-	-	-	5
LANG0840-2	French, S2 - 2e quadrimestre - ISLV, Marielle MARÉCHAL	Q2	-	-	-	5
GCIV0008-2	Energy and transport (english language) - Mario Cools - [25h Proj.]	Q1	30	15	[+]	4
Focus courses						
ARCH0065-2	Design Process Analysis - Samia BEN RAJEB, Pierre LECLERCQ - [18h Proj.]	Q2	15	30	[+]	3
GCIV0165-1	Timber constructions (english language) Suppl: José Alexandre GOUVEIA HENRIQUES	Q1	15	15	-	3
ARCH3282-1	<i>Urban Transport & Mobility</i> (english language) - Mario Cools - [30h Proj., 2d FW]	Q1	25	25	[+]	5
ARCH2019-1	Engineering of urban environments - Sigrid REITER - [60h Proj.] Corequisite: ARCH2007-2 - Conception architecturale et urbaine durable	Q1	18	36	[+]	5
ARCH2018-1	Urban and territorial governance - Christophe Breuer, Jacques Teller	Q1	20	-	-	2
SPOL2209-3	Territorial development and the environment: Policies and legal aspects - Sophie Hanson, Alexandre Pirson	Q1	30	-	-	2
ARCH3272-1	Building performance simulation and monitoring (english language) - Part 1 - Shady Attia - Part 2 - Shady Attia - [70h Proj.]	Q1	15 15	15 25	- [+]	5
GCIV0133-9	Maintenance, repair and renforcement of constructions (english language) - Luc Courard - [1d FW] Prerequisite: GCIV0201-2 - Technologie des bétons et matériaux nouveaux	Q1	20	20	[+]	3
ARCH3274-1	<i>User-centred approaches to architecture and engineering</i> - Catherine ELSEN - [30h Proj., 1d FW]	Q1	10	10	[+]	2

Bloc d'aménagement du programme de l'année

Bridging courses (aimed at bachelors or students with a degree in engineering - this includes students from Institut Mines Telecom d'Alès, from 'Ecole d'Ingénieurs de La Rochelle, from Polytech Lille, from 'Institut de Technologie du Cambodge and from EPF Troyes, Sceaux, Montpellier)

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

Optional courses

Choose 1 to 30 credits from among: [...]

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

Optional courses

[...] Choose 31 to 60 credits from:

Bridging courses Master of science in architecture and engineering (aimed at bachelors in architecture)

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

Optional courses

[...] Choose 1 to 30 credits from among:

Bridging courses Master of science in architecture and engineering (aimed at bachelors in architecture)

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

Optional courses

[...] Choose 31 to 60 credits from:

Bridging courses M. sc arch and engineer. (engineering)

ARCH0002-1	Methodology of Architectural Projects I: functional and ergonomical composition - Pierre Leclercq - [1d FW, 100h Proj.]	TA	30	60	[+]	8
ARCH3270-1	Architectural studio IA: Graphic composition - Catherine ELSEN - [1d FW, 35h Proj.]	Q1	10	40	[+]	3
ARCH0066-2	Architectural studio IB: architectural compositon - Catherine ELSEN - [1d FW, 25h Proj.]	Q2	10	40	[+]	4
ARCH0006-2	Methodology of Architectural Projects II: bioclimatic composition - Pierre LECLERCQ - [1d FW, 85h Proj.]	TA	40	50	[+]	8
ARCH0068-7	Urban Analytics, Theory - Jacques TELLER	Q1	15	20	-	2
ARCH0017-4	Digital architectural modeling - Aurélie DE BOISSIEU - [98h Proj.]	Q2	20	70	[+]	6
ARCH2224-1	Architectural culture 2 - history of construction - Antiquity to the 19th century - Philippe Sosnowska	Q2	40	-	-	4
ARCH3260-2	Architectural studio II, Introduction - Catherine ELSEN - [1d FW, 85h Proj.]	TA	20	70	[+]	7
ARCH3262-1	Architectural studio III A - Shady ATTIA - [1d FW, 55h Proj.]	Q1	10	35	[+]	5
ARCH3263-1	Architectural studio III B - Sigrid REITER - [1d FW, 55h Proj.]	Q2	10	35	[+]	4
GCIV2030-2	Structural Design of Buildings - JeanFrançois DEMONCEAU - [40h Proj.]	Q1	15	30	[+]	4
ARCH3281-1	Summary of construction practices in the building industry -	Q1	7	45	[+]	5



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ECLERCQ - [1d FW, 30h Proj.]

Bridging courses M of sc arch and engineer. (bac.)

MATH0002-5	Mathematical analysis 1 - Part 1 - Eric DELHEZ - Part 2 - Patricia Tossings - [26h QA Sess.]	Q1	22	22	- [+]	8
MATH0066-1	Complement of mathematics 2 - Patricia Tossings	Q2	26	26	-	4
ARCH0006-2	Methodology of Architectural Projects II: bioclimatic composition - Pierre Leclercy - [1d FW, 85h Proj.]	TA	40	50	[+]	8
MECA0001-2	<i>Mechanics of materials</i> - JeanFrançois DEMONCEAU, Laurent DUCHENE - [2h Labo., 12h Proj.]	Q1	27	25	[+]	5
MECA0012-6	Solid mechanics - Laurent DUCHENE - [15h Proj.]	Q2	26	26	[+]	5
GCIV0184-5	Building Materials - Luc COURARD, Anne HABRAKEN - [0,5d FW, 12h Labo., 12h Proj.]	Q2	36	16	[+]	5
GCIV2172-1	Metallic Elements Calculation - JeanFrançois DEMONCEAU - [1d FW, 10h Proj.]	Q2	26	26	[+]	5
GCIV2173-1	Reinforced concrete (english language) - Boyan MIHAYLOV - [1d FW, 10h Proj.]	Q2	26	26	[+]	5
ARCH0009-3	Sustainable building construction techniques III: networks - Shady Attia - [1d FW, 45h Proj.]	Q1	17	35	[+]	5
ARCH3281-1	Summary of construction practices in the building industry - Pierre Leclercy - [1d FW, 30h Proj.]	Q1	7	45	[+]	5
GCIV0608-1	Introduction to Structures engineering - JeanFrançois DEMONCEAU, Vincent DENOËL - [4d FW, 40h Proj.]	Q1	12	12	[+]	5