

# Bachelor in Engineering : Architecture

In order to access the Bachelor in Engineering (Civil Engineering or Architecture), students must have a certificate showing they have passed the special admission exam for this programme.

**Programme mnemonic**
BA-IRAR

**Studies level**
Bachelor

**Learning language**
french

**Schedule**
office hours

**Studies categories / subcategories**
Art / Architecture and Sciences and technics / Sciences and technics

**Campus**
Solbosch

## Programme objectives

The programme aims at a parallel development and integration of the different aspects of construction engineering and architecture; and combines scientific rigor with projects in architectural engineering design and projects of science application.

## Programme's added value

The bachelor training in architectural engineering homogenously combines engineering courses and architecture sciences and brings together staff and students in Civil Engineering and Architectural Engineering from the Brussels School of Engineering and Architecture from the Architecture Faculty at ULB.

Students follow language courses (integrated teaching with architecture oriented courses) to allow them to follow the master programme in English. In the third block of bachelor, some courses are taught in English and shared with the VUB architectural engineering students.

Students success in their studies is a core objective at ULB. If you are having difficulties with a particular subject, we will provide help in the following ways:

- additional explanations by our teaching staff and their assistants
- specific assistance from student assistants
- inter-faculty guidance on general topics

We invite you to discover :

- a specialist laboratory for each discipline, providing hands-on illustrations of the subjcrédits of study;
- the faculty libraries, the university central libraries (science and technical library, architecture library), its catalogues and online specialist subscriptions.
- several computer rooms and studio seminars.

## Teaching methods

From the first year onwards, the programme is presented in various teaching methods (from lectures to exercises and seminars), in which the architecture studio takes a central and dominant place.

## Succeed in your studies

**Choose**

The information and guidance counsellors at the InfOR-études [https://www.ulb.be/en/studies-info-desk-1] service will help you choose your studies throughout the year.

**Succeed**

Take part in preparatory courses [https://www.ulb.be/en/studies-info-desk-1] or get help to succeed [https://www.ulb.be/en/studies-info-desk-1] , before or during your studies.

**Get help**

Apply for financial aid, look for accommodation or a student job, get support [https://www.ulb.be/fr/aides-services-et-accompagnement/aid-services-and-support-1] for your specific needs.

## International/Openness

The Erasmus exchange programme is organized at Master level and allows students to continue their studies abroad either one term (four months) or a full academic year. The Brussels School of Engineering is also a member of the TIME network bringing together 40 of the best engineering schools in Europe. In this framework, double degree agreements were established, providing students with the opportunity to during both the third block of BA and the first block of MA study year (at the end of the MA students receive two master degrees: one from ULB and the other from the partner university).

The subsequent Master in Architectural Engineering is organised jointly with VUB. All MA courses are taught in English.

## Job opportunities

The Bachelor degree in Architectural Engineering gives access to the Master in Architectural Engineering. The Master degree allows direct access to a broad range of professions in architecture and construction engineering, among which:

- Architectural engineer
- Architect
- Consultant engineer
- Research engineer
- Engineer in a consultancy or architecture office

The Master in Architectural Engineering also prepares for a career in research in architectural engineering or architecture.

**Contacts**

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**Jury President**
Philippe BOGAERTS

**Jury Secretary**
Michel KINNAERT

# Bachelor in Engineering : Architecture

The study programme is based on a combination of theory lectures, exercises, seminars and architecture studios. The main teaching domains are:

- Architecture studio and media: 67 ECTS
- Architecture and construction sciences: 67 ECTS
- Mathematics: 20 ECTS
- Mechanics, physics, ...: 30 ECTS

## **Bloc 1** | BA-IRAR

## Cours obligatoires

ARCH-H100 Projet d'architecture I | Samia BEN RAJEB (Coordinator) and Stéphane Meyrant
20 credits [workshop: 450h, personal assignments: 150h] first and second terms French

ARCH-H1002 Moyens d'expression I (partim) et voyage | Pierre DEJASSE DE CAFMEYER (Coordinator) and Marcelle RABINOWICZ
5 credits [practical work: 48h, field trips: 30h] academic year French

COMM-P1303 Composition et représentation 1 : Théorie et critique d'architecture | Pierre DEJASSE DE CAFMEYER (Coordinator)
5 credits [lecture: 36h, tutorial classes: 12h, personal assignments: 12h] first and second terms French

LANG-H1001 Anglais I | Matthew LANGSLEY (Coordinator), David Albert BEST and Richard ESSEX
2 credits [tutorial classes: 24h] second term English

MATH-H1002 Analyse I | Yves DE SMET (Coordinator)
5 credits [lecture: 30h, tutorial classes: 30h] second term French

MATH-H1003 Algèbre linéaire et géométrie | Jérémy DOHET-ERALY (Coordinator)
8 credits [lecture: 42h, tutorial classes: 54h] first and second terms French

MATH-H1004 Eléments d'analyse | Yves DE SMET (Coordinator)
2 credits [lecture: 18h, tutorial classes: 6h] first term French

MECA-H100 Mécanique rationnelle I | Alain DELCHAMBRE (Coordinator)
5 credits [lecture: 24h, tutorial classes: 36h] first and second terms French

TRAN-H100 Introduction aux sciences appliquées | Dimitri GILIS (Coordinator)
8 credits [lecture: 36h, tutorial classes: 60h] first term French

# Bachelor in Engineering : Architecture

## **Bloc 2** | BA-IRAR

## Cours obligatoires

ARCH-H200 Projet d'architecture II | Rika DEVOS (Coordinator)
15 credits [workshop: 450h] first and second terms French

ARCH-H2003 Représentation numérique 2D/3D en architecture et informatique | Samia BEN RAJEB (Coordinator)
5 credits [practical work: 60h] first term French

ARCH-H2005 Théorie et Histoire de l'Architecture et voyage | Rika DEVOS (Coordinator)
5 credits [lecture: 48h, field trips: 30h] first and second terms French

ARCH-H2006 Moyens d'expression 2 (partim) et Anglais II | Kiran KATARA (Coordinator), Pierre DEJASSE DE CAFMEYER, Richard ESSEX and Matthew LANGSLEY
5 credits [practical work: 60h] first and second terms French

CHIM-H2002 Sciences des matériaux | Stephane GODET (Coordinator)
5 credits [lecture: 36h, practical work: 24h] first term French

CNST-H2001 Mécanique des solides et des structures | Philippe BOUILLARD (Coordinator)
5 credits [lecture: 30h, tutorial classes: 30h] second term French

CNST-H2002 Matériaux et construction | Jean-Yves DAL (Coordinator) and Laura CERIOLO
5 credits [lecture: 48h, practical work: 12h] academic year French

PHYS-H1001 Physique générale I | Marc HAELTERMAN (Coordinator)
5 credits [lecture: 30h, tutorial classes: 12h, practical work: 12h] first term French

PHYS-H1002 Physique générale II | Marc HAELTERMAN (Coordinator)
5 credits [lecture: 30h, tutorial classes: 12h, practical work: 12h] second term French

URBA-P3111 Urbanisme et géographie urbaine | Geoffrey Grulois (Coordinator) and Benoît MORITZ
5 credits [lecture: 48h] first term French

# Bachelor in Engineering : Architecture

## **Bloc 3** | BA-IRAR

## Module 312

ARCH-H300 **Projet d'architecture III** | Samia BEN RAJEB (Coordinator)
15 credits [workshop: 450h] first and second terms French

ARCH-Y008 **Form-active structures** | Lars DE LAET (Coordinator)
4 credits [lecture: 12h, practical work: 36h] second term English

ARCH-Y302 **Architectural and construction history of architecture pre 1850** | Stéphanie VAN DE VOORDE (Coordinator)
4 credits [lecture: 24h, tutorial classes: 12h, practical work: 12h] second term English

CNST-H302 **Soil mechanics** | Alessia Cuccurullo (Coordinator)
5 credits [lecture: 24h, practical work: 36h] first term English

CNST-H303 **Analyse de structures** | Didier Snoeck (Coordinator)
5 credits [lecture: 36h, tutorial classes: 24h] first term French

CNST-H306 **Bioclimatic design** | Ahmed Zaib KHAN MAHSUD (Coordinator)
5 credits [lecture: 36h, practical work: 24h] second term English

CNST-H311 **Technologie et comportement du béton et des matériaux cimentaires** | Stéphanie STAQUET (Coordinator)
5 credits [lecture: 24h, tutorial classes: 12h, practical work: 24h] second term French

CNST-H423 **Architecture, engineering and construction project management** | Philippe BOUILLARD (Coordinator)
5 credits [lecture: 36h, practical work: 24h] second term English

LANG-H300 **Anglais III et voyage** | Richard ESSEX (Coordinator), David Albert BEST and Matthew LANGSLEY
2 credits [practical work: 12h, field trips: 12h] first and second terms English

MECA-H3001 **Fluid mechanics and transfer processes** | Alessandro PARENTE (Coordinator), Frédéric DEBASTE and Richard ESSEX
5 credits [lecture: 30h, tutorial classes: 24h] first term English

PROJ-H305 **Projet de conception des structures** | Didier Snoeck (Coordinator) and Alessia Cuccurullo
5 credits [project: 150h] second term French