

# SA1 - Structure et architecture (module 1) : Architectural Design and Construction

## Titulaire

Geneviève MARTIN (Coordonnateur)

## Mnémonique du cours

ARCH-P7115

## Crédits ECTS

10 crédits

## Langue(s) d'enseignement

Anglais et Français

## Période du cours

Premier quadrimestre

## Campus

Flagey

## Contenu du cours

This unit "Architectural Design and Construction" offers the ability to formulate and criticize the mechanical functioning of building structures, and to assess the specific issues raised by the design of a structure with a view to making reasonable, coherent, and rational choices. Also, we push to evaluate the technical and constructive principles, to analyse and use technical documents and to dialogue professionally with the engineer based on rigorous structural reflexivity.

## Objectifs (et/ou acquis d'apprentissages spécifiques)

*Course Outline > Learning Objective*

Observe, analyse and assess the building process;

Assess the potential of a material and a design element;

Design and present an architectural project orally and in writing (book, article);

Participate to a concrete design competition;

Build a wooden structure;

Present in English (posters, book).

Topic for this term 2023 > Concrete versus Wood

## Pré-requis et co-requis

### Connaissances et compétences pré-requises

Structure et matériaux 1(CNST-P1102), 2(CNST-P1202), 3(CNST-P2102), 4(CNST-P2202), 5(CNST-P3102), 6(CNST-P3202).

## Méthodes d'enseignement et activités d'apprentissages

Visits, lectures, articles, interactive pedagogy, content and language integrated learning (CLIL method).

SA is applied in the frame of links with building material federations.

## Contribution au profil d'enseignement

- > Design a project to experiment and be innovative with a proposal including the integration of human, technical and economic constraints of the design project.
- > Develop a reflexive attitude enriching the theories and practices of architecture: master and integrate the technical and human sciences of architectural design, manufacture, and transmit a design expertise, problematize a research question around the process.
- > Build as an architect ethical and responsible practice: consider architecture as a cultural discipline constantly renewed, in constant touch with developments of artistic and social practices.
- > Interact with all the actors involved in the issues of space and architecture: Foster experimentation and creativity; communicate in a clear and structured way for experienced or not public, the architectural design process tracking and its spatial production.

## Support(s) de cours

Université virtuelle

## Autres renseignements

### Lieu(x) d'enseignement

Flagey

### Contact(s)

Prof. ir. Geneviève Martin

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Teacher in Mechanic, Building's structure and equipment

## Méthode(s) d'évaluation

Travail de groupe, Travail personnel, Examen écrit, Présentation orale et Rapport écrit

### Examen écrit

Question ouverte à réponse courte et Question ouverte à développement long

## Méthode(s) d'évaluation (complément)

Personal written works,  
Team written works,  
Personal oral presentation,  
Team oral presentations,  
Jury and written exam in January.

## Construction de la note (en ce compris, la pondération des notes partielles)

Travaux (40%)  
Jury(s)/Présentation(s) orale(s) 40%  
Examen écrit (Théorie) 20%

## Langue(s) d'évaluation principale(s)

Anglais

## Autre(s) langue(s) d'évaluation éventuelle(s)

Français

## Programmes

### Programmes proposant ce cours à la faculté d'Architecture La Cambre Horta

MA-ARCH | **Master en architecture** | finalité Spécialisée/bloc 1 et finalité Spécialisée/bloc 2

