

## Faculty of Applied Sciences



### AUCE1605 Studio 5 : Architecture, Technology and Sustainable Development [60h] (4 credits)

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This course is taught in the 1st semester

**Teacher(s):** Magali Bodart, André De Herde  
**Language:** French  
**Level:** First cycle

#### Aims

At the end of this course, the students will be able to:

Analyze the physical and environmental (climatic) aspects of the existing situation.

Give a critical interpretation of a program and assess its technical (heating, electricity, acoustics, ventilation) and structural (foundations, stability) features.

Integrate the technological aspects and their consequences for sustainable development in architectural design and composition.

Contribute to the work by physical simulations and principles applied to special and structural techniques followed by dimensioning.

Produce, present and defend the project by applying manual and computer drafting techniques and models.

#### Main themes

Realize and improve awareness of the place of this workshop in the entire BAC IR. CIV. ARCH program.

New cumulative experience of the project approach.

A question is asked pertaining to the technical conditions of the design and construction of the architectural project:

Either the techniques confirm the spatial order,

Or the techniques subject space to their evolving logic.

Or the composition is determined both spatially and technically.

The way the question is posed will give an understanding of the importance of techniques in the contemporary world, an idea of the speed of their evolution compared to the time of the architecture and how to take this into account in a personal ethical attitude on development and concern with the future.

The project will be accompanied by a theoretical introduction and presentation of analyzed references that can be used as groundwork for assessing it.

The questions of sustainable development, pollution, recycling, energy, ecology, materials, stability, implementation techniques, prefabrication, building methods applicable to the site, the timetable of interventions etc. will be considered.

#### Content and teaching methods

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#### Other information (prerequisite, evaluation (assessment methods), course materials recommended readings, ...)

To be decided by the course instructor: the operating language of the workshop is French, but English and Spanish speaking students are accepted.

Prerequisites:

2 architecture workshops

Evaluation :

By an examining board at the end of the workshop; the presentation can be given in French or English.

**Other credits in programs**

<b>ARCH12BA</b>	Deuxième année de bachelier en sciences de l'ingénieur, orientation ingénieur civil architecte	(4 credits)	
<b>ARCH13BA</b>	Troisième année de bachelier en sciences de l'ingénieur, orientation ingénieur civil architecte	(4 credits)	Mandatory