

## Faculty of Applied Sciences



### AUCE1702 Construction: materials

[30h] 3 credits

This course is taught in the 2nd semester

**Teacher(s):** Paolo Amaldi, André De Herde  
**Language:** French  
**Level:** First cycle

#### Aims

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

- Develop an initial understanding of the major construction materials available to architectural design
- Understand through the senses and through experimentation the physical properties of each material,
- Understand the potential and qualities of each material insofar as each may contribute to inhabitable places
- Link each material with building types belonging to history or to the contemporary situation.

#### Main themes

The course will describe and analyze the principal types of construction materials available to architectural design.

The course will study the physical characteristics of different materials, with an accent on the objective parameters necessary to distinguish them, notably in regard to their use in building construction.

Materials chemistry will be evoked, tracing common transformations (corrosion, ageing, and other alterations) to which materials are subject.

Technological properties will be studied in relation to the "poetics" of construction.

The course will be largely based on case studies: buildings or works that are of interest either for their exceptional or exemplary character, or on the contrary in order to show typical practice and performance.

#### Content and teaching methods

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

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#### Other credits in programs

|                 |  |             |           |
|-----------------|--|-------------|-----------|
| <b>ARCH11BA</b> | Première année de bachelier en sciences de l'ingénieur, orientation ingénieur civil architecte | (3 credits) | Mandatory |
| <b>ARCH12BA</b> | Deuxième année de bachelier en sciences de l'ingénieur, orientation ingénieur civil architecte | (3 credits) |           |
| <b>FSA12BA</b>  | Deuxième année de bachelier en sciences de l'ingénieur, orientation ingénieur civil            | (3 credits) |           |