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| Teacher(s) | Sottiaux Luc ; |
| Language : | French |
| Place of the course | Bruxelles Saint-Gilles |
| Main themes | <p>This teaching unit forms part of continuous learning on structures and their behaviour.</p> <ul style="list-style-type: none"> • Load, overload and stresses in buildings • Soil mechanics: definition, components and structure of the soil, law of fundamental behaviour, action of water, constraints and balances including earth pressures, unstable soils and landslides • Direct and deep foundations • Supports: slopes, retaining walls, shoring and anchors <p>Advanced study:</p> <ul style="list-style-type: none"> • Prefabricated structures in concrete : process of design and choice of construction system, general stability and bracing, pre-stressed flat and ribbed floor elements, joints and brackets • Complex and large scale/storeyed structures: design and conditions for implementation, including foundations <p>These topics are studied with the aim of experiencing the professional practice of the engineering consultant in the field of building stability.</p> |
| Learning outcomes | <p>At the end of this learning unit, the student is able to :</p> <p>Specific learning outcomes:</p> <p>By the end of this teaching unit, students are able to</p> <ul style="list-style-type: none"> • describe and critically analyse the mechanical working of building structures as a driver of an efficient work of architecture. • assess the specific issues raised by the design of a structure so as to make sensible, coherent and rational choices. • assess the technical and construction principles to be developed for large scale structures; assess the methods and conditions of implementation. • analyse and make use of technical documents. • enter into a professional dialogue with an engineer using knowledge of structures rigorously : communicate an architectural project with the use of plans, presentations or other documents adapted with a view to posing questions about the project and developing it. <p>1</p> <p>Contribution to the learning outcomes reference network:</p> <p>Use the technical dimension</p> <ul style="list-style-type: none"> • Be familiar with and interpret the main technical principles of construction • Be able to apply the various basic technical principles in producing a work of architecture <p>Make committed choices</p> <ul style="list-style-type: none"> • Understand the merits of an idea which can lead to the objectives to be achieved by the project; follow through with determination, even by means of a modest intervention, the implementation of this idea and the achievement of these objectives |
| Evaluation methods | Oral examination |
| Teaching methods | Course in auditoria. These activity is in the form of contact hours. |
| Content | These activity consists in analysis and structural design of buildings (see Main Topics). |
| Bibliography | Notes de cours rédigées par le professeur |
| Faculty or entity in charge | LOCI |

Programmes containing this learning unit (UE)

| Program title | Acronym | Credits | Prerequisite | Learning outcomes |
|---|---------|---------|--------------|---|
| Master [120] in Architecture (Bruxelles) | ARCB2M | 4 | |  |