

LBARC1160

2012-2013

Structural analysis I

Teacher(s):	Pelsser Yvette ;
Language :	Français
Place of the course	Bruxelles
Main themes :	Conditions for structure equilibrium: Hypotheses of statics, systems of forces and couples, supports and support reactions Graphostatics: Graphic methods applied to statics issues, as a tool for the representation of forces and the good comprehension of their effects on the structure Internal forces and stresses: Determination of normal and shear forces, bending moment and consequently linked normal and shear stresses Strength of materials: Behaviour laws and physical properties Introduction to design and evaluation of a structures: As a deduction of geometrical parameters, load solicitations and the chosen material
Aims :	This cursus introduces to architectural design of bearing structures. At the conclusion of this education, students must acquire the following knowledge: - Basic principles of statics and the strength of materials - Transposition of architectural elements into abstract representation - Graphic and analytic calculations related to structures So, the students will be able to: - Analyse structures with a critical mind and design structural forms: How they work, the propagation of forces, the constitutive elements arrangement, their proportions - Efficiently interact with structural design engineers The contribution of this Teaching Unit to the development and command of the skills and learning outcomes of the programme(s) can be accessed at the end of this sheet, in the section entitled "Programmes/courses offering this Teaching Unit".
Cycle and year of study:	> Bachelor in Architecture (Bruxelles)
Faculty or entity in charge:	LOCI