LTARC1261

2015-2016

Structural analysis II

5.0 credits	30.0 h + 45.0 h	1q

Teacher(s) :	Evrard Cédric ; Faux Pascaline ;
Language :	Français
Place of the course	Tournai
Prerequisites :	*The prerequisite(s) for this Teaching Unit (Unité d'enseignement – UE) for the programmes/courses that offer this Teaching Unit are specified at the end of this sheet.*
Aims :	*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".*
Evaluation methods :	Written or oral exam (theory and exercises) and continuous assessment
Teaching methods :	Theorie : lecture Exercices in pairs and peerlearning
Content :	Theory: Strength of materials, structural design and analysis of constructive typologies -- Tension : Câbles et membranes -- Compression : Compression: Arches and domes -- Materials: behavior, atomic bonds, steel and wood -- Mechanical flexion, deformation (elastic and plastic), combined bending, left, indeterminate beams, buckling, shear -- Load study and bracing Exercises: complex study modeled on real cases -- Funicular structur -- Descente de charge
Bibliography :	Allen E., Zalewski W., Form and Forces, Designing efficient, expressive structures, Boston, Wiley, 2010 Muttoni A., L'art des structures, Lausanne, PPUR, 2004 Studer M-A. & mp; Frey Fr., Introduction à l'analyse des structures, Lausanne, PPUR, 1997 Gordon J., Structures et matériaux, Pour la science, Belin, 1994
Faculty or entity in charge:	LOCI

Programmes / formations proposant cette unité d'enseignement (UE)				
Intitulé du programme	Sigle	Credits	Prerequis	Acquis d'apprentissage
Bachelor in Architecture (Tournai)	ARCT1BA	5	LTARC1160	