

4.0 credits	20.0 h + 30.0 h	2q
-------------	-----------------	----

Teacher(s) :	Faux Pascaline ;
Language :	Français
Place of the course	Tournai
Prerequisites :	<i>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.</i>
Aims :	<i>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".</i>
Evaluation methods :	-- Exercices: continuous evaluation - groupworks -- Written exam theory and exercices
Teaching methods :	Theory: magistral lessons in auditorium Exercices: small group sessions - groupworks and peerlearning
Content :	Theory: concrete -- Lesson 1 : generalities, history and concrete applications -- Lesson 2 : concrete components (aggregates, water, liants, adjuvants); prescriptions and implementation, technical characteristics -- Lesson 3 : Calculs of reinforcements - column - beam - principles for dalles, stairs, consoles - technologic details - preloading Exercices : complex study modeled on real cases -- Analysis and sizing of concrete structural elements - Commented exercices - Groupworks and peerlearning
Bibliography :	Allen E., Zalewski W., Form and Forces, Designing efficient, expressive structures, Boston, Wiley, 2010 Muttoni A., L'art des structures, Lausanne, PPUR, 2004 Salvadori M., Comment ça tient ?, Editions Parenthèses, 2005 Studer M-A. & mp; Frey Fr., Introduction à l'analyse des structures, Lausanne, PPUR, 1997 Schodek D., Bechthold M., Structures, sixth edition, Pearson Prentice Hall, 2008 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	4	LTARC1261 and LTARC1262	