UCLouvain

ltarc2169

2022

Modeling project data

3.00 credits	30.0 h	Q2

Teacher(s)	Llaguno Maider ;
Language :	French > English-friendly
Place of the course	Tournai
Main themes	The technological revolution which has happened in the world of architecture means that ever more efficient tools are needed for managing project data. To respond to the demands of sustainable design, it is necessary to go beyond a simple, geometric 3D representation of a project to find an intelligent model which brings together all the aspects involved in construction and enables various different simulations to be carried out (energy assessment, structural calculations, cost). The objective of this teaching unit is to deal with these aspects by constructing a digital model, still termed a 'BIM model' and to cover the methodology associated with it. • The BIM concept and collaborative working • Design of a BIM model (geometric and construction design) • Interoperability between applications
Learning outcomes	**At the end of this learning unit, the student is able to :** **Specific learning outcomes:** By the end of the course, students will be able to • understand the issues involved in BIM and how to move from a classic design process to an integrated design process. • link together different knowledge and disciplines. • know how to draw up a project with a digital model in a practical way. • know how to choose the appropriate technology according to the type and phase of project. • know how to make the most of design parameters. • know how to analyse the performance of a digital model. **Contribution to the learning outcomes reference network:** **Design a project** • Express and prioritise the aims of the projects so as to be able to make choices • Adopt approaches which are methodical, creative, metaphorical, perceptive, collaborative etc. **Make use of other subjects** • Seek out other approaches, exchanges of views and ways of enhancing thinking about architecture • Make strategic use of other subjects to put into question the design and implementation of an architectural project **Use the technical dimension** • Be familiar with and interpret the main technical principles of construction **Express an architectural procedure** • Be familiar with, understand and use the codes for representing space, in two and three dimensions • Test and use relevant means of communication in relation to the intended audience and the target objectives **Adopt a professional attitude** • Organise, plan, develop and bring together the different strands of individual or collective work • Test and observe the framework of professional practice and to architectural knowledge through independent involvement
Bibliography	• « BIM et Maquette numérique », Olivier Celnik et Eric Lebègue, Editions Eyrolles Paris 2015. • « Revit Architecture, Développement de projet et bonnes pratiques », Julie Guézo et Pierre Navarra, Editions Eyrolles Paris 2016.

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Faculty or entity in charge	LOCI

Programmes containing this learning unit (UE)

Program title	Acronym	Credits	Prerequisite	Learning outcomes
Master [120] in Architecture (Tournai)	ARCT2M	3		🔍
Master [120] in Architecture (Bruxelles)	ARCB2M	3		🔍