Fundamentals of Computer Aided Modelling

Module Information

2022.01, Approved

Summary Information

Module Code	4507ICBTQS
Formal Module Title	Fundamentals of Computer Aided Modelling
Owning School	Civil Engineering and Built Environment
Career	Undergraduate
Credits	15
Academic level	FHEQ Level 4
Grading Schema	40

Teaching Responsibility

LJMU Schools involved in Delivery
LJMU Partner Taught

Partner Teaching Institution

Institution Name
International College of Business and Technology

Learning Methods

Learning Method Type	Hours
Lecture	45
Practical	15
Tutorial	15

Module Offering(s)

Display Name	Location	Start Month	Duration Number Duration Unit
APR-PAR	PAR	April	12 Weeks

JAN-PAR	PAR	January	12 Weeks
SEP_NS-PAR	PAR	September (Non-standard start date)	12 Weeks

Aims and Outcomes

Aims	Aim(s) of the module is to demonstrate an understanding of various aspects of information technology & model based approaches required for construction and manufacturing sectors and to apply CAD tools to produce various design information & modelling details of construction and manufacturing sectors which ensure the competitive effectiveness of Quantity surveying practice.

After completing the module the student should be able to:

Learning Outcomes

Code	Number	Description
MLO1	1	Demonstrate an understanding about various industry standard drafting tools & packages for construction and manufacturing sectors of building, service & civil engineering structures
MLO2	2	Demonstrate understanding and apply various tools & packages to produce detailed drawings & building information in construction and manufacturing sectors of buildings, services & civil engineering structures
MLO3	3	Evaluate the requirement of advance information technology, Information Communication Technology (ICT) & Building Information Modelling (BIM) and skills to ensure the competitive effectiveness of the future of Quantity surveying practice

Module Content

Outline Syllabus	Introduction to construction CAD packages: AutoCAD, Naviswork, MS Project 2D drawing design of various civil engineering structures: Structural elements of buildings (sub structural & super structural), floor layouts, schedule of openings, structural detailing & service layouts of civil engineering designs 3D (Design) modelling of various building & civil engineering structures 4D (Scheduling) of BIM for planning & tracking construction activities 5D (Cost) of BIM for integration of design (3D) and schedule (4D) with the costs associated with the components of the model
Module Overview	
Additional Information	

Assessments

Assignment Category	Assessment Name	Weight	Exam/Test Length (hours)	Module Learning Outcome Mapping
Portfolio	Coursework	30	0	MLO1, MLO2, MLO3
Exam	Examination	70	2	MLO1, MLO2, MLO3

Module Contacts

Module Leader

Contact Name	Applies to all offerings	Offerings
Karl Jones	Yes	N/A

Partner Module Team

Contact Name	Applies to all offerings	Offerings