

Module Information

2022.01, Approved

Summary Information

Module Code	4502ICBTME
Formal Module Title	Engineering Drawing and Computer Aided Engineering
Owning School	Engineering
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	12
Seminar	6
Tutorial	15
Workshop	6

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-PAR	PAR	September	12 Weeks

Aims and Outcomes

Aims	This unit aims to introduce students to the principles of engineering design, enhance their abilities to generate new ideas and provide applications through design projects of different levels of complexity. The aim of this unit is to enhance learners' skills in the use of computer-aided design and 3D modelling systems to solve a design problem. This unit will enhance competencies in AutoCAD, Solid works, SolidCAM and FEM simulation technique
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After completing the module the student should be able to:

Learning Outcomes

Code	Number	Description
MLO1	1	Develop visual thinking skills associated with common graphics projections.
MLO2	2	Demonstrate an in depth understanding of the principles of engineering free hand drawing and instrument drawings. (Sketching, Orthographic, Normal Surface, Cylindrical Surface, Inclined Surface, Sectional View).
MLO3	3	Ability to interpret a complex engineering drawing and develop an engineering drawing for given scenario/product.
MLO4	4	Use latest computer aided drawing software in engineering 2D and 3D designs.

Module Content

Outline Syllabus	Standardization and common engineering drawing symbols Engineering projections and methods Geometric Tolerance Curve and surface design using Cubics Principles of Computer Aided Design and Manufacturing Principles of Computer Numerically Controlled machines Principles of Computer aided process planning Application areas of finite element method
Module Overview	
Additional Information	

Assessments

Assignment Category	Assessment Name	Weight	Exam/Test Length (hours)	Module Learning Outcome Mapping
Test	Coursework	30	0	MLO1, MLO2
Exam	Examination	70	2	MLO3, MLO4

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
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