Machine Design I

Module Information

2022.01, Approved

Summary Information

Module Code	5507ICBTME
Formal Module Title	Machine Design I
Owning School	Engineering
Career	Undergraduate
Credits	15
Academic level	FHEQ Level 5
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
Off Site	6
Practical	6
Seminar	3
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-PAR	PAR	September	12 Weeks

Aims and Outcomes

Aims	This module aims to develop understanding of concepts in machine elements and design. This module enhances student knowledge in solving realistic problems in machine component or elements design and preparation of drawings and documentation for production.

After completing the module the student should be able to:

Learning Outcomes

Code	Number	Description
MLO1	1	Demonstrate understanding of engineering design process.
MLO2	2	Demonstrate the understanding of the manufacturing process of a design.
MLO3	3	Analyse and solve simple but realistic problems in machine component design and prepare production drawings and other documentation for production.
MLO4	4	Produce a simple machine design.

Module Content

Outline Syllabus	Introduction to Engineering design processProduction drawings and tolerance Introduction to Ergonomics Integration of machine elements – gears, keys, couplings, bearings, riveted joints, threaded joints etc.Stresses in machine elements and modes of failure
Module Overview	
Additional Information	

Assessments

Assignment Category	Assessment Name	Weight	Exam/Test Length (hours)	Module Learning Outcome Mapping
Exam	Examination	40	1	MLO1, MLO3
Report	Report	60	0	MLO2, 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