Liverpool John Moores University

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Title:	Introductory Foundation Physics
Status:	Definitive
Code:	**3506FETQR** (127438)
Version Start Date:	01-08-2021
Owning School/Faculty:	Engineering
Teaching School/Faculty:	Oryx Universal College WLL

Team	Leader
Marco Messina	Y
Gerard Edwards	

Academic Level:	FHEQ3	**Credit Value:**	20	**Total Delivered Hours:**	57
Total Learning Hours:	200	**Private Study:**	143		

Delivery Options
Course typically offered: S2, Summer NS2 (S2 for Jan)

Component	Contact Hours
Lecture	33
Workshop	22

Grading Basis: 40 %

Assessment Details

Category	Short Description	Description	Weighting (%)	Exam Duration
Exam	Exam	Examination	50	2
Test	Tests	A series of on-line tests	50	

Aims

The aim of this module is to provide students who may not have studied A-level physics with the prerequisite basic knowledge of electricity mechanics, materials and waves which is required to go on to study for an engineering or technology degree.

Learning Outcomes

After completing the module the student should be able to:

1	Describe the structure of an atom and explain how that relates to electrical properties
2	Describe the general properties of longitudinal and transverse waves in different media, and apply the governing equations to simple applications
3	Apply knowledge of force and motion to analyse the behaviour of simple mechanical systems
4	Demonstrate an understanding of the thermal properties of a simple system.
5	Explain the behaviour of simple resistive circuits and apply the equations which characterise them.

Learning Outcomes of Assessments

The assessment item list is assessed via the learning outcomes listed:

Examination	1	2	4	5	3
On-line tests	1	2	4	5	3

Outline Syllabus

Units, measurement and analysis
Scalars and vectors
Atomic structure
Materials
Kinematics
Force
Friction
Energy
Energy conservation
Temperature, material expansion, mechanical equivalent of heat
Calorimetry, phase, heat transfer
Simple Harmonic Motion
Waves and interference
Circular motion
Electric charge , current and potential difference, energy, ohms law, power
Kirchhoff's Laws, resistor circuits, impedance matching, power transfer
Conductors, Insulators and Semiconductors, structure, characteristics and devices
Transistors,

Learning Activities

Lectures and workshops

Notes

This module looks at the fundamentals of Physics, using the maths developed during the Foundation Mathematics modules.