

Liverpool John Moores University

Title: Physics 1
Status: Definitive
Code: **3512IFESG** (124184)
Version Start Date: 01-08-2021

Owning School/Faculty: Engineering
Teaching School/Faculty: Study Group

Team	Leader
Jack Mullett	Y

Academic Level: FHEQ3
Credit Value: 10
Total Delivered Hours: 34.5
Total Learning Hours: 100
Private Study: 65.5

Delivery Options

Course typically offered: Runs Twice - S1 & S2

Component	Contact Hours
Lecture	17
Seminar	7
Tutorial	3
Workshop	6

Grading Basis: 40 %

Assessment Details

Category	Short Description	Description	Weighting (%)	Exam Duration
Exam	ASS1	1.5 hr exam consisting of both simple descriptive questions and problems, with one data analysis question.	100	1.5

Aims

To provide students with the necessary knowledge and understanding of the principles of oscillations, waves, atomic structure and data analysis for progression onto undergraduate engineering courses.

Learning Outcomes

After completing the module the student should be able to:

- 1 Demonstrate an understanding of the theoretical concepts of oscillations, waves and atomic Physics.
- 2 Apply their knowledge to solve problems.
- 3 Analyse unfamiliar experimental data.

Learning Outcomes of Assessments

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

Examination	1	2	3
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Outline Syllabus

- *Oscillations: Including introduction to springs and resonance*
- *Waves: Including Properties, reflection and refraction, electromagnetic waves, interference and the photoelectric effect*
- *Atomic Physics: including properties of the nucleus and radiation*
- *Data analysis*

Learning Activities

Lectures and workshops will comprise didactic teaching alongside continuous formative assessments such as in class tests and problem solving scenarios. Homework will support these activities and should guide the student towards the development of self-study and independent thought. Students will have opportunities to critically analyse physical situations and data.

Notes

Opportunities to collect and analyse data will be provided in taught session and assessed through a question in the module assessment.