Liverpool John Moores University

Title:	Computing and Video Tools
Status:	Definitive
Code:	**4207AMP** (124845)
Version Start Date:	01-08-2021
Owning School/Faculty:	Engineering
Teaching School/Faculty:	Engineering

Team	Leader
Ronan McMahon	Y

Academic Level:	FHEQ4	**Credit Value:**	20	**Total Delivered Hours:**	55
Total Learning Hours:	200	**Private Study:**	145		

Delivery Options
Course typically offered: Semester 1

Component	Contact Hours
Lecture	22
Practical	33

Grading Basis: 40 %

Assessment Details

Category	Short Description	Description	Weighting (%)	Exam Duration
Test	AS1	Class Test	40	
Technology	AS2	Video Based Assessment	60	

Aims

The module introduces the students to aspects of optics and computing which are central to the equipment required to operate in this field.

Learning Outcomes

After completing the module the student should be able to:

1	Identify and evaluate the computing related components within industry equipment.
2	Discuss the impact of various computing related issues on equipment performance.

Learning Outcomes of Assessments

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

Class Test	1
Video Based Assessment	2

Outline Syllabus

Computers – processors, storage, IO, internal connectivity
Computing devices – tablets, phones, laptops, desktops, workstations, servers and clients
Light –velocity, frequency, wavelength, propagation through different materials,
Lenses – size, shape, structure
Concepts of analogue and digital representation and conversion
Optical sensors
Exposure Value
Cameras: smartphones, tablets, webcams, compact cameras, DSLR, OB cameras, studio cameras
Video file formats
Image processing and storage
Streaming of video content

Learning Activities

Lectures, Practical sessions and demonstrations.

Notes

The module introduces aspects of computing and optics to media tools. This includes discussions on capturing essence and comparisons between various device types and their performance. Critical aspects of computing which are central to these devices are examined.