Liverpool John Moores University

Title:	SYSTEM AND DEVICE TESTING
Status:	Definitive
Code:	**5021TECH** (105422)
Version Start Date:	01-08-2016
Owning School/Faculty:	Electronics and Electrical Engineering
Teaching School/Faculty:	Electronics and Electrical Engineering

Team	Leader
David Ellis	Y

Academic Level:	FHEQ5	**Credit Value:**	12	**Total Delivered Hours:**	36
Total Learning Hours:	120	**Private Study:**	84		

Delivery Options
Course typically offered: Semester 2

Component	Contact Hours
Practical	24
Seminar	12

Grading Basis: 40 %

Assessment Details

Category	Short Description	Description	Weighting (%)	Exam Duration
Essay	AS1	Labwork	100	

Aims

To apply techniques utilising knowledge gained at level 1 so as to: solve problems related to ensuring that equipment continues to meet specifications; identify, review and select techniques to enable maintenance and rectify problems; comply with relevant codes of conduct.

Learning Outcomes

After completing the module the student should be able to:

1 Review strategies for system acceptance, compliance and failure testing
2 Select and deploy relevant test equipment
3 Formulate appropriate techniques to measure and demonstrate system performance

Learning Outcomes of Assessments

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

CW	1	2	3

Outline Syllabus

Customer and functional specifications
Compliance matrices for identification of requirements
Designing for test
Anticipatory failure modes
System failure - risk and mitigation methods
Safe systems of work
Identification of acceptance test regimes
Fault modes and effects
Test equipment and utilization
Systematic approach to test and compliance demonstration

Learning Activities

Practical sessions, demonstrations, seminars.

Notes

With complex systems, there is a significant need for a systematic approach to ensuring compliance with the functional specifications. This module develops methods of ensuring that systems can be shown to be compliant and methods by which system and device failures can be identified.