

## Module Information

2022.01, Approved

### Summary Information

Module Code	7115COMP
Formal Module Title	Multimedia Compression, Storage and Retrieval
Owning School	Computer Science and Mathematics
Career	Postgraduate Taught
Credits	20
Academic level	FHEQ Level 7
Grading Schema	50

### Teaching Responsibility

LJMU Schools involved in Delivery
Computer Science and Mathematics

### Learning Methods

Learning Method Type	Hours
Lecture	11
Practical	11
Seminar	5
Tutorial	6

### Module Offering(s)

Display Name	Location	Start Month	Duration Number Duration Unit
JAN-CTY	CTY	January	12 Weeks

### Aims and Outcomes

Aims	To develop advanced skills in multimedia data handling mechanisms. To critically analyse compression techniques and standards, particularly in relation to still and moving images as well as digitised sound. To relate advanced architectural, operating systems and networking developments to multimedia data, particularly how the timing requirements and data volumes associated with multimedia data storage, retrieval and communication dictate hardware, software and networking developments.
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**After completing the module the student should be able to:**

**Learning Outcomes**

Code	Number	Description
MLO1	1	Identify the requirements of advanced hardware and software systems for multimedia support, including compression and storage technology.
MLO2	2	Analyse and evaluate the role of networked multimedia systems and critically appraise the techniques involved in their design, development and maintenance.
MLO3	3	Execute a requirements analysis of, design and evaluate, distributed multimedia solutions, recognising the impact of compression and storage techniques on the development of distributed multimedia systems and applications.

**Module Content**

Outline Syllabus	Compression techniques and related standards, e.g. JPEG, MPEG 2, 4 and 7. Included in the MPEG study will be the study of Psychoacoustics, perceptual encoding and related MP3 standard. Quality of Service for Multimedia data: Requirements, end-systems and networking support: Scheduling, Buffering, Caching. Multimedia Storage techniques, distributed filing systems. Storage systems optimisation for Multimedia Data. Case Study: Video on Demand, IPTV, and related topics.
Module Overview	
Additional Information	In this module advanced technologies, such as compression and storage techniques, are presented as supporting features of integrated global multimedia networked systems, from World Wide Web and Video Conferencing to Interactive TV. Group Coursework: Students will be differentiated through peer review for marking purposes.

**Assessments**

Assignment Category	Assessment Name	Weight	Exam/Test Length (hours)	Module Learning Outcome Mapping
Artefacts	Networked multimedia	40	0	MLO1
Centralised Exam	Examination	60	2	MLO2, MLO3

**Module Contacts**

**Module Leader**

Contact Name	Applies to all offerings	Offerings
Rubem Pereira	Yes	N/A

**Partner Module Team**

Contact Name	Applies to all offerings	Offerings
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