

Liverpool John Moores University

Title: ADVANCED MULTIMEDIA
Status: Definitive
Code: **6127COMP** (121304)
Version Start Date: 01-08-2021

Owning School/Faculty: Computer Science and Mathematics
Teaching School/Faculty: Computer Science and Mathematics

Team	Leader
Yuanyuan Shen	Y
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Academic Level: FHEQ6 **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
Workshop	33

Grading Basis: 40 %

Assessment Details

Category	Short Description	Description	Weighting (%)	Exam Duration
Artefacts	AS1	The development of an application integrating a video browser and player.	50	
Technology	AS2	Group work with peer assessment that covers the design and development of an interactive multimedia application.	50	

Aims

To develop a theoretical knowledge of the concepts of advanced media types and

the advanced media production techniques and technologies required to design and develop digital media systems.

Learning Outcomes

After completing the module the student should be able to:

- 1 Critically evaluate the issues related to advanced media production and technologies.
- 2 Appraise and apply the techniques involved in the implementation of an interactive multimedia application.
- 3 Critically evaluate the techniques and challenges behind the design and development of an interactive multimedia application.

Learning Outcomes of Assessments

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

Coursework 1	1	2
Coursework 2	2	3

Outline Syllabus

Rich internet applications: concepts and definitions, modelling approaches, technologies.

User experience: concepts, lifecycle and benefit of UX, tools of UX (e.g. user testing, expert review, persona and etc.).

Introduction to Media Production –

Media Production standards,

Video/Audio CODEC and Compression Techniques

Hardware and software technologies - Discussion of the technologies required to support media production

Advanced Media Production Technologies: Sound and Video production (capture, format, archiving, streaming, etc...), Media player technologies and Codec, Image and model based scene representations, 3D-modelling from images and video, Media Production online deployment

Architecting interactive multimedia solution: information architecture design, dynamic content, data storage, technology integration, application optimization, security and etc.

Advance multimedia scripting: media scripting, interaction scripting, real-time animation scripting, data processing and visualization scripting.

Workshop session involving the design of a media production artefact in form of a video, animation, or game and using relevant advanced tools and technologies, through group work.

Learning Activities

Formal lectures will deliver theoretical concepts while practical-based workshop sessions, which take place in computer laboratories, will be used to introduce specific techniques and methods used in the development of advanced multimedia applications.

Notes

This module broadens the awareness of the design and development of interactive multimedia applications such as Rich Internet Applications.