

#### Summary Information

Module Code	5115COMP
Formal Module Title	Distributed Systems
Owning School	Computer Science and Mathematics
Career	Undergraduate
Credits	20
Academic level	FHEQ Level 5
Grading Schema	40

#### Teaching Responsibility

LJMU Schools involved in Delivery
Computer Science and Mathematics

#### Learning Methods

Learning Method Type	Hours
Lecture	22
Practical	10
Seminar	10
Tutorial	11

#### Module Offering(s)

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

#### Aims and Outcomes

Aims	To assess a variety of principles, tools and techniques used for the design of distributed computer systems. To evaluate the effect of distribution, benefits and problems, on the design and implementation of computer based solutions, and to design distributed systems using appropriate tools and techniques.
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**After completing the module the student should be able to:**

### Learning Outcomes

Code	Number	Description
MLO1	1	Analyse the requirements of a distributed system and the suitability of existing distributed systems paradigms
MLO2	2	Apply knowledge of distributed systems and middleware
MLO3	3	Identify appropriate tools and techniques for the design of a distributed system
MLO4	4	Evaluate distributed systems, and related tools and techniques

### Module Content

Outline Syllabus	Distributed Systems Concepts and Architectures – Models and Paradigms Networked applications and Middleware Message passing, Remote Procedure Calling Distributed Objects and Remote Method Invocation Distributed File Systems Naming Synchronisation Replication Fault Tolerance
Module Overview	
Additional Information	The distributed paradigm is analysed, including architectures, models, middleware and applications. The most salient concepts are analysed and suitable tools and techniques evaluated against specific requirements.

### Assessments

Assignment Category	Assessment Name	Weight	Exam/Test Length (hours)	Module Learning Outcome Mapping
Artefacts	Design of a distributed system	50	0	MLO2, MLO3
Centralised Exam	Exam	50	2	MLO1, MLO4

### Module Contacts

#### Module Leader

Contact Name	Applies to all offerings	Offerings
Denis Reilly	Yes	N/A

#### Partner Module Team

Contact Name	Applies to all offerings	Offerings