

Summary Information

Module Code	5549NCCG
Formal Module Title	Cloud Computing and Programming
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
LJMU Partner Taught

Partner Teaching Institution

Institution Name
Nelson and Colne College Group

Learning Methods

Learning Method Type	Hours
Lecture	60

Module Offering(s)

Display Name	Location	Start Month	Duration Number Duration Unit
JAN-PAR	PAR	January	12 Weeks
SEP-PAR	PAR	September	12 Weeks

SEP_NS-PAR	PAR	September (Non-standard start date)	12 Weeks
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Aims and Outcomes

Aims	This module is designed to develop an understanding of the fundamental concept of Cloud Computing, cloud segments, and cloud deployment models, the need for Cloud Computing, an appreciation of issues associated with managing cloud service architecture and to develop a critical awareness of Cloud Computing based projects.
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After completing the module the student should be able to:

Learning Outcomes

Code	Number	Description
MLO1	1	Demonstrate an understanding of the fundamentals of Cloud Computing and its architectures.
MLO2	2	Evaluate the deployment models, service models and technological drivers of Cloud Computing and validate their use
MLO3	3	Develop Cloud Computing solutions using service provider's frameworks and open source tools.
MLO4	4	Analyse the technical challenges for cloud applications and assess their risks.

Module Content

Outline Syllabus	Networking Paradigm: Peer-to-peer Computing, Client-Server Computing, Distributed Computing, Cluster Computing, High-Performance Computing, Parallel Computing, Grid Computing Cloud Computing Fundamentals: Cloud Ecosystem, Cloud Architecture, Network Connectivity in Cloud Computing, Managing the Cloud, Migrating Application to Cloud Deployment models: Private Cloud, Public Cloud, Community Cloud, Hybrid Cloud. Service models. Technological drivers. Programming Models, Pervasive Computing, Application Environment. Cloud Service Providers. Open Source Tools Distributed Computing Tools Security: Data Security, Virtualisation, Network Security. Platform related security, Audit and Compliance.
Module Overview	
Additional Information	

Assessments

Assignment Category	Assessment Name	Weight	Exam/Test Length (hours)	Module Learning Outcome Mapping
Report	Assignment	100	0	MLO1, MLO2, MLO4
Competency	NCC Group Pass/Fail			MLO3

Module Contacts

Module Leader

Contact Name	Applies to all offerings	Offerings

Bob Askwith	Yes	N/A
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Partner Module Team

Contact Name	Applies to all offerings	Offerings
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