

Network Forensics

Module Information

2022.01, Approved

Summary Information

Module Code	7135COMP
Formal Module Title	Network Forensics
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	12
Practical	12
Tutorial	12

Module Offering(s)

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

Aims and Outcomes

Aims	To develop a critical appreciation of both the theoretical and practical issues in the field of network forensics. To critically appraise the use of computer networks and their importance to computer forensics investigations. To develop the necessary skills, methodologies and processes to conduct a basic network forensics investigation within an organisation.
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After completing the module the student should be able to:

Learning Outcomes

Code	Number	Description
MLO1	1	Explain the technical concepts, implementation and restrictions of network forensics in a variety of situations.
MLO2	2	Critically evaluate recent advances in network technologies to assess their impact and applicability to a network forensics investigation.
MLO3	3	Assess the role of network forensics in the wider fields of networks, computer security, law and computer science.
MLO4	4	Critically analyse and evaluate network forensics data evidence.

Module Content

Outline Syllabus	Introduction to the network environment Forensic protocol control Network analysis using wireshark Network forensics report Network protocol and malware forensics Web forensics Email forensics Network intrusion detection and incident response Mobile and wireless network forensics Future challenges – Cloud Computing
Module Overview	This module develops a critical appreciation of both the theoretical and practical issues in the field of network forensics. You will develop the necessary skills, methodologies and processes to conduct a basic network forensics investigation within an organisation.
Additional Information	This advanced course is intended for post-graduate students interested in the field of network forensics. The purpose of the course is to provide the fundamental technical concepts and research issues essential for network forensics investigations within the organisation, law enforcement or national security.

Assessments

Assignment Category	Assessment Name	Weight	Exam/Test Length (hours)	Module Learning Outcome Mapping
Essay	Critical Review	50	0	MLO1, MLO2, MLO3
Portfolio	Forensic portfolio	50	0	MLO4

Module Contacts

Module Leader

Contact Name	Applies to all offerings	Offerings
Michael Mackay	Yes	N/A

Partner Module Team

Contact Name	Applies to all offerings	Offerings
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