Liverpool John Moores University

Title: ADVANCED TOPICS IN NETWORK SECURITY
Status: Definitive
Code: **7073COMP** (120331)
Version Start Date: 01-08-2019

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

Team	Leader
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Academic Level:	FHEQ7	**Credit Value:**	20	**Total Delivered Hours:**	36
Total Learning Hours:	200	**Private Study:**	164		

Delivery Options
Course typically offered: Semester 2

Component	Contact Hours
Lecture	12
Seminar	24

Grading Basis: 40 %

Assessment Details

Category	Short Description	Description	Weighting (%)	Exam Duration
Report	AS1	Produce a research paper relating to a contemporary network security problem.	100	

Aims

To provide students with an opportunity to experience cutting edge development in Network Security by studying recent academic research in the area.

To provide students with an opportunity to practise research skills, such as scientific writing, presentations, and proposal writing.

Learning Outcomes

After completing the module the student should be able to:

1	Conduct research relating to Network Security.
2	Display advanced knowledge of one or more issues within Network Security.
3	Demonstrate expertise in applying knowledge to Network Security problems.
4	Demonstrate skills in the communication of research findings.

Learning Outcomes of Assessments

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

Research paper	1	2	3	4

Outline Syllabus

Topics will reflect the current research in network security, including that being undertaken within the school, and may include (but are not limited to):

- Internet of Things security
- Malware
- Formal specifications and logics
- Denial of Service protection
- Cryptography
- Anonymity and Privacy Enhancing Technologies
- Sensor Network Security
- System-of-systems Security
- Critical Information Infrastructure Protection
- Big Data analysis for security
- Visualisation for security
- Serious games in security
- Digital Rights Management

Learning Activities

Lectures will be supported by discursive seminar sessions. During these sessions students will also present and discuss the results of their research work.

Notes

The focus of the module is on examining current research issues and agendas within Network Security. Students are encouraged to develop their research skills, through conducting literature investigations and proposing ideas in a seminar setting.