LIVERPOOL JOHN MOORES UNIVERSITY

Problem Solving for Computer Security

Module Information

2022.01, Approved

Summary Information

Module Code	4714YCOM
Formal Module Title	Problem Solving for Computer Security
Owning School	Computer Science and Mathematics
Career	Undergraduate
Credits	20
Academic level	FHEQ Level 4
Grading Schema	40

Teaching Responsibility

LJMU Schools involved in Delivery
LJMU Partner Taught

Partner Teaching Institution

Institution Name
YPC International College (Kolej Antarabangsa YPC)

Learning Methods

Learning Method Type	Hours
Lecture	11
Practical	22
Tutorial	11

Module Offering(s)

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

Aims and Outcomes

Aims	To enhance students software development and problem solving skills.To develop problem decomposition and analysis skills. To enhance students understanding of computer security using a popular programming language.

After completing the module the student should be able to:

Learning Outcomes

Code	Number	Description
MLO1	1	Apply problem decomposition methodologies to analyse computer security problems.
MLO2	2	Identify solutions to computer security problems using a range of software development problem solving techniques.
MLO3	3	Apply programming techniques to computer security problems.
MLO4	4	Carry out structured evaluation of the developed solution.

Module Content

Outline Syllabus	Problem DecompositionFlow DiagramsAlgorithmsPseudocode Minimum Viable ProductObject-Oriented DesignInformation RepresentationOpen Source Project and DevelopmentTeam Work
Module Overview	
Additional Information	Students will apply their understanding in two assessments. First, they will apply design and problem analysis techniques to a relevant case study scenario involving computer security. Second, they will translate such a design into a software solution.

Assessments

Assignment Category	Assessment Name	Weight	Exam/Test Length (hours)	Module Learning Outcome Mapping
Report	Problem decomposition	60	0	MLO1, MLO2
Report	Solution development	40	0	MLO3, MLO4

Module Contacts

Module Leader

Contact Name	Applies to all offerings	Offerings
Glyn Hughes	Yes	N/A

Partner Module Team

Contact Name	Applies to all offerings	Offerings