Liverpool John Moores University

Title:	COMPUTER SECURITY
Status:	Definitive
Code:	**6022COMP** (103006)
Version Start Date:	01-08-2011
Owning School/Faculty:	Computing and Mathematical Sciences
Teaching School/Faculty:	Computing and Mathematical Sciences

Team	Leader
Robert Askwith	Y

Academic Level:	FHEQ6	**Credit Value:**	12.00	**Total Delivered Hours:**	38.00
Total Learning Hours:	120	**Private Study:**	82		

Delivery Options
Course typically offered: Semester 1

Component	Contact Hours
Lecture	12.000
Practical	12.000
Tutorial	12.000

Grading Basis: 40 %

Assessment Details

Category	Short Description	Description	Weighting (%)	Exam Duration
Report	AS1	Report	25.0	
Exam	AS2	Examination	75.0	2.00

Aims

To develop an understanding of the security threats and vulnerabilities to information and computing systems.
To develop practical skills in the use of security countermeasure technologies and associated tools.

Learning Outcomes

After completing the module the student should be able to:

1 Demonstrate an understanding of the threats and vulnerabilities to information and computing systems
2 Demonstrate the use of security software to mitigate these threats and vulnerabilities.
3 Assess the use of security countermeasures in a computing environment
4 Explain and critically evaluate the use of security plans and policies in an organisation.

Learning Outcomes of Assessments

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

Report	1	3	4
Exam	1	2	

Outline Syllabus

The course outline includes:
Introduction to computer security; security services and the security goals; common security problems; legal, ethical, and professional issues of secure computing; security risk management; encryption for secure computing and digital signatures; security protocols; security technologies such as firewalls and intrusion detection systems; viruses and worms; mobile code security; securing the personal computer and network from attack; safe use of the Internet and Web.
The practical laboratory exercises will develop skills in securing computers.

Learning Activities

Lectures and practical work. The practical work builds on core computer security concepts covered in the lectures. This involves laboratory and user demonstrations of information security techniques and tools.

References

Course Material	Book
Author	Whitman, M.E. & Mattord, H.J
Publishing Year	2003
Title	'Principles of Information Security',
Subtitle	
Edition	
Publisher	Thomson Course Technology
ISBN	0-619-06318-1

Course Material	Book
Author	Pfleeger, C.P. & Pfleeger, S
Publishing Year	2006
Title	Security in Computing
Subtitle	
Edition	4th Edition
Publisher	Prentice-Hall International
ISBN	0-132-39077-9

Notes

This course is intended for graduate students interested in the field of computer security. The purpose of the course is to provide the fundamental technical concepts essential for computer security.