

Module Details	
Module Title	Internet Security and Protocols
Module Code	COS7023-B
Academic Year	2021/2
Credits	20
School	Department of Computer Science
FHEQ Level	FHEQ Level 7

Contact Hours	
Type	Hours
Lectures	24
Tutorials	6
Laboratories	18
Directed Study	152

Availability	
Occurrence	Location / Period
BDA	University of Bradford / Semester 2

Module Aims
To develop a comprehensive understanding of the underlying technologies of computer and network security mechanisms and a critical awareness of the overhead, impact and relative value of the protection offered.

Outline Syllabus
Models for network security. Threat of and countermeasures for intruders. Internet security architecture. Internet standards and security standards. Network security tools and applications. Security protocols for Application, Transport and Network layers in TCP/IP architecture of the Internet. Security protocols for new emerging technologies such as Internet of Things and Cloud computing.

Learning Outcomes	
Outcome Number	Description
01	Demonstrate an understanding and mastery of the nature of security protocols within a network and the Internet. Demonstrate a critical awareness of the performance and quality issues involved.
02	Demonstrate skills to deal with the complex issues involved in effectively implementing a reliable and effective security protocol. Be able to identify suitable metrics to compare security levels and develop tools for the evaluation of different protocols via modelling or analysis.
03	Deploy advanced skills of research, problem-solving and communication. Be self-directed, independent learners who show initiative and personal responsibility.

Learning, Teaching and Assessment Strategy
Formal input provided by lectures, supported by practical problems discussed and solved in tutorials and lab sessions, and student directed reading. Practical examples used, where appropriate, to illustrate issues raised by security protocols. Assessment is by coursework, which provides an opportunity to practise practical skills.

Mode of Assessment			
Type	Method	Description	Weighting
Summative	Coursework - Written	Lab Report (4000 words)	100%

Reading List
To access the reading list for this module, please visit https://bradford.rl.talis.com/index.html

Please note:

This module descriptor has been published in advance of the academic year to which it applies. Every effort has been made to ensure that the information is accurate at the time of publication, but minor changes may occur given the interval between publishing and commencement of teaching. Upon commencement of the module, students will receive a handbook with further detail about the module and any changes will be discussed and/or communicated at this point.

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