

Module Details	
Module Title:	Ethical Hacking
Module Code:	COS7029-B
Academic Year:	2019-20
Credit Rating:	20
School:	Department of Computer Science
Subject Area:	Computer Science
FHEQ Level:	FHEQ Level 7 (Masters)
Pre-requisites:	
Co-requisites:	

Contact Hours	
Type	Hours
Lectures	12
Laboratory	36
Directed Study	152

Availability	
Occurrence	Location / Period
BDA	University of Bradford / Semester 2 (Feb - May)

Module Aims
To develop a comprehensive understanding of how to secure business systems.

Outline Syllabus
Background to ethical hacking; footprint and reconnaissance; scanning networks; enumeration; system hacking; Trojans, backdoors, sniffers, viruses and worms; social engineering; DoS; hijacking and hacking; cryptography and penetration testing.

Learning Outcomes

1	Evaluate and apply an advanced and systematic understanding of now to secure systems by using hacking tools for penetration testing.
2	Deal with the complex issues involved in effectively securing systems both systematically and creatively.
3	1. Further advance your skills of research, problem-solving and communication. 2. Be a self-directed, independent learner who shows initiative and personal responsibility.

Learning, Teaching and Assessment Strategy

Formal input provided by lectures (LO1) and lab based exercises (LO2, LO3a). Students will participate in exercises to learn how to scan, test and hack in order to effectively secure systems. The lab intensive module facilitates knowledge acquisition and practical experience with current security systems (LO1, LO2, LO3a, LO3b).

Assessment by coursework takes account of the practical security environment and the theoretical material discussed in class and tests all learning outcomes.

Mode of Assessment

Type	Method	Description	Length	Weighting
Summative	Coursework	Ethical Hacking Exercise (develop and document a penetration test). Equivalent to 4000 words.	0 hours	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.