

Module Details	
Module Title	Ethical Hacking
Module Code	COS7029-B
Academic Year	2022/3
Credits	20
School	Department of Computer Science
FHEQ Level	FHEQ Level 7

Contact Hours	
Type	Hours
Lectures	6
Laboratories	36
Directed Study	152
Lectures	12

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

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	
Outcome Number	Description
01	Evaluate and apply an advanced and systematic understanding of how to secure systems by using hacking tools for penetration testing.
02	Deal with the complex issues involved in effectively securing systems both systematically and creatively.
03	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 and lab based exercises. 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. Lab exercises will be conducted in a controlled environment provided by the EC Council. 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	Weighting
Summative	Coursework - Written	Ethical Hacking Exercise (develop and document a penetration test). Equivalent to 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.