

AMITY GLOBAL INSTITUTE

MODULE SYLLABUS

Course	BACHELOR OF SCIENCE (HONOURS) COMPUTING (UNIVERSITY OF NORTHAMPTON)
Module Title	Cyber security and Cryptography
Module Syllabus No. (if any)	CSY3023
Year Offered	2018
Start-Date	February 2018 / September 2018
End-Date	January 2019 / August 2019
Syllabus / Content / Learning Outcomes	<p>On successful completion of the module students will be able to:</p> <p>Knowledge and Understanding</p> <p>a) Demonstrate a critical appreciation of complex issues concerning Cyber Security.</p> <p>b) Evaluate and identify security breaches/threats on the Internet. c) Critically evaluate and identify the key aspects regarding systems security, e.g.: Confidentiality, authenticity, non-repudiation, etc.</p> <p>Subject specific skills</p> <p>On successful completion of the module students will have demonstrated their ability to:</p> <p>d) Possess a critical appreciation of the use of Information security tools and cryptographic systems.</p> <p>e) Demonstrate a critical appreciation of the purpose and structure of network security architectures.</p> <p>f) Demonstrate a critical appreciation of the need to develop a security policy to protect Internet systems and applications</p> <p>g) Demonstrate a critical appreciation of the design and implementation of Secure Internet applications.</p> <p>Key Skills</p> <p>On successful completion of the module students will have had the opportunity to:</p> <p>h) Demonstrate a diagnostic ability to develop a conceptual awareness of the applications of Cyber Security principles in a real world context.</p> <p>i) Produce a critical report with high level technical content.</p>
No. of Teaching Hours	24 x 1 hr lectures = 24 24 x 1 hr practical classes / seminars = 24 Tutorial, skills development and revision = 25 Student-centred learning = 102 1 x In-programme assignment, 2,000 words or equivalent = 25 TOTAL = 200
Teaching Methods	Lectures, tutorials, case-studies analysis, research journals and group discussion.
Assessment Methods and Weightages	AS1- Assignment 1: (2,500 words or equivalent) – 50% AS2- Assignment 2: Time constrained Test 1 (2 hours).- 50%
Skills for Maximising Learning Outcomes	Reading and research
Dates of Examinations, Major Assessments and Assignments	Please refer NILE at: https://nile.northampton.ac.uk
Recommended Text	

Note: All Information provided to Amity will be kept strictly confidential except for those required under statutory requirements and by government authorities and relevant university partners and accreditation bodies as part of the regulatory or course requirements.

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Additional Reference Texts (if any)	
Additional Remarks (if any)	Practical computing assignments normally require any developed software to be explicitly demonstrated as part of the assignment. The demonstration/defence of any software is normally a formal element of the assignment and explicitly stated with the assignment brief. In addition, all software developed is submitted through turn-it-in, to assist with detecting any plagiarism.

Lesson No.	Learning Outcome
1	Introduction to security framework, Cyber security, vulnerabilities & attacks 1
2	Introduction to security framework, Cyber security, vulnerabilities & attacks 2
3	Ethical Hacking and Penetration Testing 1
4	Ethical Hacking and Penetration Testing 2
5	Security concepts and terminology; security and privacy issues 1
6	Security concepts and terminology; security and privacy issues 2
7	Symmetric Cryptography 1
8	Symmetric Cryptography 2
9	Public-key Cryptography and Public Key management 1
10	Public-key Cryptography and Public Key management 2
11	Cryptographic Applications 1
12	Cryptographic Applications 2
13	Network Security issues in wired and wireless environment 1
14	Network Security issues in wired and wireless environment 2
15	Applications Security 1
16	Applications Security 2

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