



Prifysgol Cymru
Y Drindod Dewi Sant
University of Wales
Trinity Saint David

UNIVERSITY OF WALES: TRINITY SAINT DAVID
PRIFYSGOL CYMRU: Y DRINDOD DEWI SANT

BSc Cloud Computing

London Campus

Network and Cyber Security Essentials
ACCA4024

Module Code	ACCA4024
Title	Networks and Cyber Security Essentials
Date	09/09/2020
Level	4
Credits	20
Pre-Requisites	None

AIM(S)

- To provide the students with an understanding of the key concepts and fundamentals of data communications, computer networks and security of data and devices in a network.

LEARNING OUTCOMES

Upon the successful completion of this module, the student should be able to:

- Develop fundamental understanding of network basics in terms of architecture, devices, application and protocols.
- Demonstrate systematic understanding of security policies and measures to mitigate internal and external attacks and threats in a network.

INDICATIVE CONTENT

- Fundamentals of networks, circuit and packet switching
- Communication on a network
- Client server model
- OSI and TCP/IP Models
- Types of Networks – LAN, WAN, MAN, SAN, etc
- Physical and logical addressing
- Wireless networks and standards
- Cyber Security – attacks, access control, encryption, cryptography
- Importance of data security
- System security – firewalls, threats, intruders and malicious software

Study Time Allocation

The study time for the module is divided as follows:

Activity type	Hours	Percentage
Scheduled learning	48	24%
Independent learning	152	76%
Placement learning	0	0%
TOTAL	200	100%

ASSESSMENT

Assessment Component 1

☐ Written exam ☒ Coursework ☐ Practical

Mode of assessment	Volume	Weighting
Portfolio	2000 words equivalent	50%

Assessment Component 2

☒ Written exam ☐ Coursework ☐ Practical

Mode of assessment	Volume	Weighting
Exam (or in-class test)	2 hrs	50%

Assessment Summary

Activity type	Percentage
Written exam	50%
Coursework	50%
Practical	0%
TOTAL	100%

INDICATIVE READING LIST

Module Code	ACCA4024	
Module Title	Networks and Cyber Security Essentials	
Classification	Reading List entry	Electronic*
Essential	William Stallings (2014) Data and Computer Communications, 10th Edition, Pearson	☒
Essential	www.netacad.com Username and password required	☒
Essential	William Stallings (2017) Network Security Essentials: Applications and Standards, 6th Edition, Pearson	☒
Further	J. S. Beasley & P. Nilkaew (2018) Networking Essentials: A CompTIA Network+ N10-007 Textbook, 5th Edition, Pearson IT Certification	☒
Further	IEEE/ACM, IEEE/ACM Transactions on Networking	☒
Further	IEEE, IEEE Network Magazine	☒
Further	Science Direct	☒
Further	Scopus	☒