



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

School of Business

London Campus

Internet Protocols
ACCC4002

AIM(S)

- To provide the student with a fundamental knowledge of Internet Protocol. Students will gain a detailed understanding of IP version 4 and 6. The various hardware devices used in modern network design and will understand the fundamental technical principles of protocols used in various layers of OSI model and IP Addressing.

LEARNING OUTCOMES

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

1. Demonstrate a knowledge and understanding of Internet Protocol and to design an IP addressing scheme using IPv4/6, subnetting and VLSM.

INDICATIVE CONTENT

- IPv4 addressing
- Class A, B, C and D IP addressing
- Public and Private IP addressing
- Subnetting IP networks and variable length subnet mask.
- Unicast, multicast, and broadcast with IPv4
- IPv6 addressing
- Unicast, anycast and multicast with IPv6

LEARNING AND TEACHING STRATEGY

The majority of factual material will be presented in lectures using handouts, guided reading and use of internet and intranet material as required. Tutorial classes will concentrate on the technical design.

The allocation of teaching to deliver the module is:

Activity type	Hours	Percentage
Scheduled learning	35	35%
Independent learning	65	65%
Placement learning	0	
TOTAL	100	100%

BIBLIOGRAPHY

Essential

Introduction to Networks Companion Guide by Cisco Networking Academy (2013)

R. Graziani, (2013) IPv6 Fundamentals: A straightforward approach to understanding IPv6, Cisco Press

Background

N. Olifer and V. Olifer (2006) Computer Networks Principles, Technologies and Protocol for Network Design, John Wiley and Sons, Ltd.

M. A. Dye, R. McDonald and A. W. Ruff, (2011) Network Fundamentals: CCNA exploration companion guide, Cisco Press.

M. Sportack, (2003) IP Addressing fundamentals, Cisco Press.

Websites

<http://www.netacad.com> (username and password required)

<http://www.iana.org/numbers>