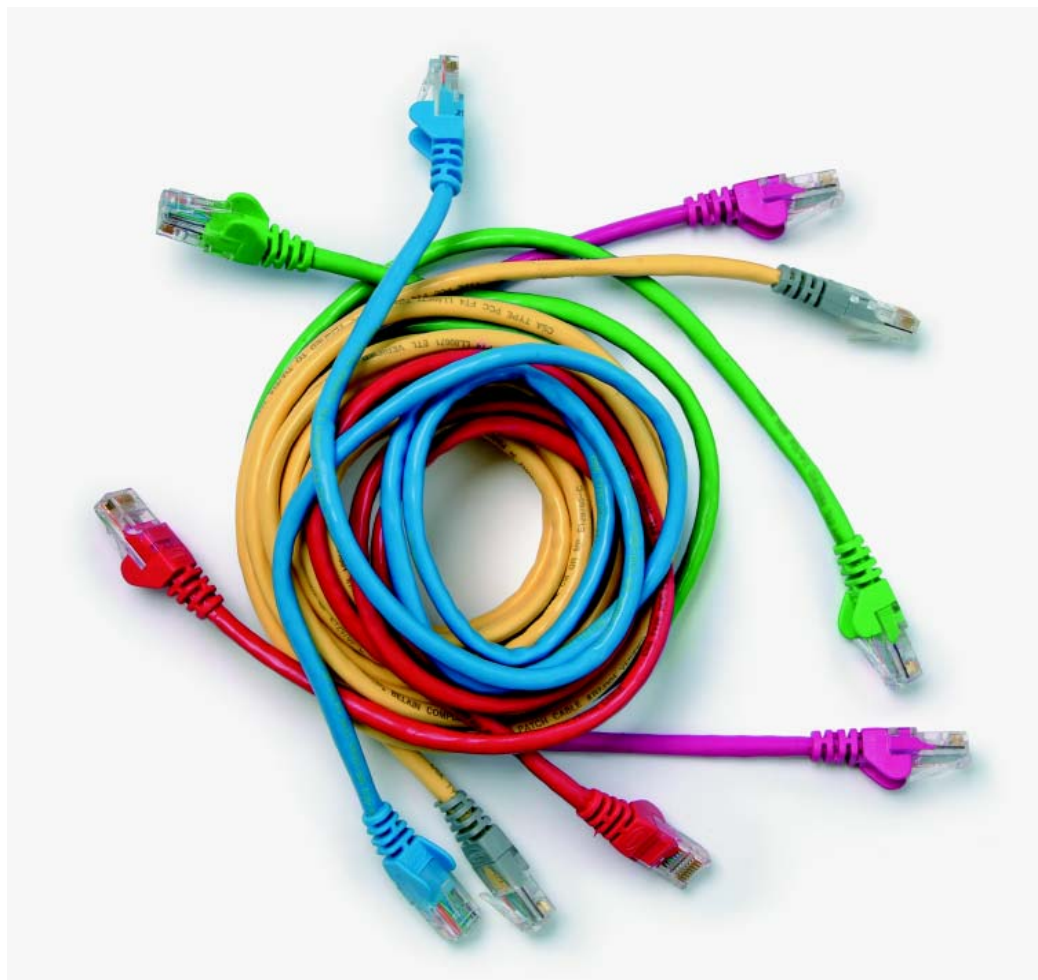


Systems and Principles Unit Syllabus

Level 3 Web development
7540-044



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Unit 044 Web development

Syllabus Overview

Unit accreditation number K/601/3256

Credit value 10

Rationale

This unit provides an understanding of web architecture, components and technologies. It also covers the development of a specification for a website and implementation of website elements.

Learning outcomes

There are **four** outcomes to this unit. The candidate will:

- Understand web architecture and components
- Understand the technologies that can be used to built and operate a website
- Develop a web-site specification
- Implement elements of a web-site

Guided learning hours

It is recommended that **80** guided learning hours should be allocated for this unit. This may be on a full time or part time basis.

Connections with other qualifications

This unit contributes towards the learning outcomes and assessment criteria required for the level 3 Diploma in ICT Professional Competence.

Assessment and grading

Assessment will be by means of a **set assignment** covering practical activities and underpinning knowledge.

Unit 044

Web development

Outcome 1

Understand web architecture and components

Underpinning knowledge

The learner will be able to

- 1 describe the hardware and software components which enable the internet and web eg
 - a Mail and proxy servers
 - b Routers
 - c Servers
 - d Operating Systems
 - e Network interface cards and cabling
 - f Wireless access points
 - g Browsers
 - h Website development software

- 2 explain the role of the TCP/IP protocol including IPv6

- 3 explain the role of internet service providers, web hosting services and domain name registrars

- 4 describe available types of web functionality including
 - a Web1.0
 - b Web 2.0
 - c Blogs
 - d Online applications
 - e Cloud computing.

Unit 044

Outcome 2

Web development

Understand the technologies that can be used to built and operate a website

Underpinning knowledge

The learner will be able to

- 1 explain the use of markup languages eg
 - a HTML
 - b XML

- 2 explain the use and functionality of: web runtime environments , web application programming languages

- 3 explain the role of databases in building websites and web applications eg
 - a SQL
 - b PHP

- 4 identify typical product stack combinations that can be used for web development.

Unit 044

Outcome 3

Web development

Develop a web-site specification

Practical activities

The learner will be able to

- 1 produce a pre-production proposal document for a web-site development project, identifying client needs, and user needs development timescales
- 2 produce an implementation plan for a web-site development.

Underpinning knowledge

The learner will be able to

- 1 identify the components required to develop a web-site.

Unit 044

Outcome 4

Web development

Implement elements of a web-site

Practical activities

The candidate will be able to

- 1 design components of a multi page web-site including,
 - a Layout of pages
 - b Navigation or Story Board
 - c Format of content
 - d Cascading Style Sheets (CSS)
 - e Shopping cart
 - f Images
 - g Animation
- 2 develop components of a web-site
- 3 test components of a web-site including,
 - a Functionality testing (user environments)
 - b Verifying all Links work as they should
 - c Navigation
 - d Content
 - e Check against user requirements.

Unit record sheet

Use this form to track your progress through this unit.

Tick the boxes when you have covered each outcome. When they are all ticked, you are ready to be assessed.

Outcome	✓	Date
1 Understand web architecture and components	<input type="checkbox"/>	
2 Understand the technologies that can be used to built and operate a website	<input type="checkbox"/>	
3 Develop a web-site specification	<input type="checkbox"/>	
4 Implement elements of a web-site	<input type="checkbox"/>	

Candidate Signature

Date

**City & Guilds
Registration Number**

**Quality nominee
(if sampled)**

Date

Assessor Signature

Date

**External Verifier
Signature (if sampled)**

Date

Centre Name

Centre Number

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