NEW ZEALAND INSTITUTES OF TECHNOLOGY AND POLYTECHNIC QUALIFICATIONS IN INFORMATION & COMMUNICATIONS TECHNOLOGY

PRESCRIPTION: IN610 WEB SITE ADMINISTRATION (Web Master)

AIM OF MODULE:	To enable students to install, configure and administer a secure web server.
CREDITS:	7
KNOWLEDGE ASSUMED FROM:	IN500 Internet
STUDENT LEARNING HOURS:	70
CONTENT REVISED:	2008
PRESCRIPTION EXPIRY DATE:	Nov 2011

Level and Assessment Schedule

TOPICS	R	C	A	P	Suggested Assessment Percentage
1. Installation and Configuration			*		40
2. Administration and Maintenance			*		20
3. Performance and Caching Issues			*		40
					100

LEARNING OUTCOMES

The student will:

C   1   Install and configure a secure web server.

C   2   Perform routine administration and maintenance on the server.

C   3   Install and configure a caching http proxy server.

CONTENT

1   INSTALLATION AND CONFIGURATION

➢   Background to the World Wide Web

-    http 1.2; properties of and transfer methods
-    Server distributions and their evolution, including GWS IIS and APACHE. Relative merits of each.

➢   Legal Issues

-    Legal issues, including copyright, privacy act, libel, fair use

➢   Browsers and browser set-up

-    Different browsers and their evolution and relative merits, including Internet Explorer, Firefox and Chrome.
-    Browser configuration, including helper applications, MIME typing of data streams and plug-ins.

➢   Installation and configuration

-    Installation and configuration of Apache httpd
-    Logging and "the common log-file format"
-    Error logs and checking
-    Personal home page areas and their locations
-    Common image areas and other devices to ensure successful caching
-    HTTP server Forums
-    Mechanisms for information owners to upload files
-    Statistics generation and reporting
-    Virtual hosts
-    Setting up a local site as a search engine.

2 ADMINISTRATION AND MAINTENANCE

➢ Server administration including server structure and hierarchies. File & directory ownership issues.

➢ Server security issues

- CERT bulletins and advisory notices
- Known security issues, particularly concerned with CGI
- Secure transactions/SSL/shttp/certificates
- Setting restrictions to control access:
  - by IP number
  - by login and password

3 PERFORMANCE AND CACHING ISSUES

➢ http proxy servers (including caching) and their installation and configuration. Proxy automatic configuration files

➢ Caching - Harvest project