

MODULE: Internet Programming

SEMESTER	II (Spring)
STAGE	II
Number of Credits:	4 semester credits/6 quarter units
THEME	Windows Systems
ASSESSMENT	Continuous Assessment 50%
	Examination 50%

Aims

This module aims to provide students with an understanding of the technologies used by the Internet in data transmission and to introduce them to aspects of website creation including security, legal and ethical issues.

Learning Outcomes

Upon completion of this module, a student will be able to:

- Discuss the structure and likely future role of the Internet;
- Compare and contrast hypermedia delivery based on Internet programming languages and protocols used;
- Demonstrate comprehension of the goals of analysis and documentation in the design process of a website;
- Apply the principles of website design;
Critically evaluate the user interface and functionality of a website;
- Distinguish between client-side and server-side technologies;
- Relate legislation and ethical principles to website design;
- Design and implement a web enabled information retrieval application using authoring tools and Internet programming languages.

Indicative Content

Topic	Description
Internet & World Wide Web	Origins and structure of the Internet; Internet topologies: peer-to-peer, server-centric; Internet services & protocols (TCP/IP, FTP, WAP, DNS, HTTP, Telnet, etc.); Web hosting and Internet Service Providers;
Website Design	Development Techniques; Requirements Analysis & Specification; Design principles, requirements and documentation; Design methodology: statement of purpose, site map, site metaphor, page design; HCI & User Interaction Design; Screen Design, Colour, Text, Graphics; Evaluation & Testing;

Web Development	Websites and multimedia; Mark up languages and implementation: HTML basics, lists, tables, hyperlinks, frames, multimedia insertion; Incorporating multimedia into websites: file formats, compression techniques and plug-ins; HTML editors/generators from a practical viewpoint; Testing and uploading websites; Basic XML concept
Internet Programming	Dynamic websites: client-side/server-side processing; Practical introduction to client-side programming; Overview of server-side concepts and structure; Current technology overview; Web Servers; DHTML: Dynamic Object Model;

Teaching and Learning Outcomes

This module will be taught using a combination of lectures, tutorials, and practical sessions. Practical exercises will involve writing and implementing basic Internet programming languages. Project work will involve the design and development of a dynamic website.

Assessment Methods

Assessment will include both a continuous component and an end of semester examination. The continuous assessment will be task oriented assignments and. Assignments will be based on developing practical skills in the design and development of a dynamic website.

Primary Reading

Title	Author	Publisher
PC Multimedia & Web Handbook	Dick D.	Dumbreck Publishing
HTML for the World-Wide Web 5 th Edition	Castro E.	Peachpit Press
HTML Goodies 2 nd Edition	Burns J.	Que

Recommended Reading

E-Business & E-Commerce – How to Program 1 st Edition	Deitel H. Deitel P. Nieto T	Prentice Hall
Internet & WWW; How to program 2 nd Edition	Deitel H. Deitel P. Nieto T	Prentice Hall