CO1097 Internet Computing

Credits: *10*   **Convenor:** *Dr. F.-J. de Vries*   **Semester:** *1ˢᵗ*

Prerequisites:	*none*		
Assessment:	*Coursework: 40%*		*Two hour exam in January: 60%*
Lectures:	*15*	*hours*	
Laboratories:	*15*	*hours*	**Private Study:** *45* *hours*

Subject Knowledge

Aims

The module will give the student a basic grounding for accessing and disseminating data across the Internet with special focus on the World Wide Web.

Learning Outcomes

Students will be able to give a coherent account of the basic technology, organisation and architecture of the Internet and the World Wide Web. They will be able to discuss the issues of Internet security and relate these to a given scenario. Students will be able to use Internet search tools to find information. They will be able to create and write static web pages using appropriate layout and graphics etc. Students will be able to organise and maintain a web site of moderate size.

Methods

Lectures, laboratory classes, recommended reading, worksheets, additional hand-outs and web support.

Assessment

Marked coursework, traditional written examination.

Skills

Aims

To teach students how to methodically solve problems given the techniques available to them.

Learning Outcomes

Students will be able to identify information needs; retrieve information relevant to those needs; organize and present information for dissemination.

Methods

Lectures, laboratory classes, and web support.

Assessment

Marked coursework, traditional written examination.

Explanation of Prerequisites

This is a basic introductory course and hence no prerequisites are required.

Course Description

The rapid growth of the Internet has affected all areas of life including how students of all disciplines obtain and present data. One of the easiest ways of doing this is via the World Wide Web, eg an Arts student may want to produce an on-line bibliography or web site of literary resources, while a Science student may want to make various data sets available on the Web.

This course will teach students how to collect data by searching the Web and how to create and maintain a web-site for disseminating such information. As such the course will cover the structure of the Internet and Web, the construction and maintenance of a web-site and issues pertaining to the security of web-sites.

Detailed Syllabus

Basic architecture of the Web: servers, HTTP, TCP/IP, etc. Security issues: HTTPS, firewalls, viruses. Internet search (relevancy), meta-data, digital object identifiers (DOI). Creating and maintaining a web-site: HTML, CSS, links (rel vs. absolute), W3C standards, accessibility, browser compatibility. Graphics and graphics tools.

Reading List

[C] Steven M. Schafer, *HTML, XHTML, and CSS bible,* Indianapolis, IN: Wiley, c2010.

[C] David Karlins, *Dreamweaver CS5.5 mobile and Web development with HTML5, CSS3, and jQuery : harness the cutting edge features of Dreamweaver for mobile and web development,* Birmingham, England : Packt Pub., 2011.

[C] Joseph Lowery, *Adobe Dreamweaver CS5 bible,* Indianapolis, Ind.: Wiley Pub., Inc., 2010.

Resources

Lecture slides, web page, study guide, worksheets, handouts, past examination papers, lecture rooms with data-projector and OHP, laboratory access.

Module Evaluation

Course questionnaires, course review.