

6. Dublin Institute of Technology

| Pre-Requisite Modules code(s) | Co-Requisite Modules code(s) | ECTS Credits | Module Code | Module Title |
|--|---|------------------------------|--------------------|---|
| | | 5 | CMPU2010 | Internet Applications and Web Development |

8.2.11. Internet Applications and Web Development

Module author: Cindy Liu

Module Description:

This module gives the learner an introduction to a range of World Wide Web client technologies and the skills needed to develop them. A combination of individual and group work is used to formulate an information architecture plan for a website and to create its style guide, assets and the XHTML code necessary to implement it.

In addition, introduce further develop skills needed to implement more advanced Web applications that use server-side technologies.

Module aim

The aim of this module is to:

- - Introduce the students to the full services available across the Internet.
- - Developing the skills needed to publish information on the Web.
- - Enhance communication skills
- - Access a database by connecting to a server

Learning Outcomes:

On completion of this module, the learner will be able to be able to:

- Identify and use a wide variety of Internet services.
- Develop XHTML and style sheets.
- Differentiate between and develop content using a variety of Web editors.
- Develop and integrate practical experience of a variety of client side technologies available for development of Web applications.
- Recognise and demonstrate the importance and principles of good Web design,
- Developed a complete Web site which provides information on a specific topic of choice and which is presented to their class.
- Create a connection to the database over the web to create dynamic content
- Evaluate a web site for accessibility.

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Learning and Teaching Methods:

The module will be taught in a work based learning laboratory environment. Weekly problem-solving exercises will be presented, which will be supported by group based learning through a major group project. The learner will also be required to conduct some supplemental reading.

Module Content:

- Internet Services: Ftp, email, remote login, audio and video across the Internet,
- Web architecture: Client/server architecture.
- Client side technologies: HTML, style sheets, helper applications, scripting languages
- Web design: Hypertext design, information design, navigation design, web design guidelines. W3C/Web Access Initiative Guidelines. National Disability Guidelines. Accessibility Testing
- Recent Advances in Client-Side Technology: e.g. XML, JavaScript, VB Script and Cookies
- Database Internet Connectivity and Server side scripting

Module Assessment:

100% - continuous assessment.

Essential Reading:

Sebesta, R.W. (2011), *Programming the World Wide Web*. Sixth Ed., Pearson.
COMER, D. E. (2008) "Computer Networks and Internets with Internet Applications", Prentice Hall.

Supplemental Reading:

David Flanagan (2006), *JavaScript: The Definitive Guide*, O'Reilly.
Chuck Musciano, Bill Kennedy (2006), *HTML and XHTML: The Definitive Guide*, O'Reilly.
Eric Meyer (2004), *Cascading Style Sheets: The Definitive Guide*, O'Reilly.

Web references, journals and other:

World-Wide-Web Consortium - <http://www.w3schools.com/>
JSP reference : <http://www.jsptut.com/>
The Apache Software Foundation <http://apache.org/>

Further Details:

The module will run over one semester, with four contact hours per week.

Date of Academic Council approval