MODULE TITLE	Web Development	CREDIT VALUE	15
MODULE CODE	ECM1417	MODULE CONVENER	Diego Marmsoler (Coordinator)

DURATION: TERM	1	2	3
DURATION: WEEKS	0	11	0

Number of Students Taking Module (anticipated)	70

DESCRIPTION - summary of the module content

Today, the World Wide Web is a ubiquitous part of everyday life, and an attractive and effective Web presence is vital for any organisation or business. In this module, you will learn about the techniques and technologies that are used to develop usable, accessible, efficient, robust and secure Web sites. These techniques and technologies will be demonstrated by writing programs for both Web clients (typically, browsers) and Web servers. In both cases, the need for portability imposes constrains not found when writing programs for a single operating system.
Pre-requisite modules: ECM1413; Co-requisite: ECM1410

AIMS - intentions of the module

In this module, you will learn how to create programs that run on Web clients and ones that run on Web servers. The programs that run on Web clients will allow you to gain an understanding of usability and accessibility concerns, and to address these concerns by using scripting, frameworks and style-sheets to create pages that react to user input. The programs that run on Web servers will allow you to gain an understanding of efficiency, robustness and security concerns, and to address these concerns by using programming languages guided by design patterns.

INTENDED LEARNING OUTCOMES (ILOs) (see assessment section below for how ILOs will be assessed)

On successful completion of this module *you should be able to*:
Module Specific Skills and Knowledge
1. Demonstrate a knowledge of the Web architecture and of design patterns for Web programs;
2. Develop programs that run on Web clients and on Web servers, and work together;
3. Discuss the difficulties in achieving usability, accessibility, efficiency and robustness when developing Web programs;
Discipline Specific Skills and Knowledge
4. Choose appropriate techniques and tools, and implement a program to meet given requirements specification;
5. Critically evaluate how well a program meets a given requirements specification;
Personal and Key Transferable / Employment Skills and Knowledge
6. Demonstrate an ability to develop usable, accessible, efficient, robust and secure Web sites;
7. Demonstrate awareness of the importance of usability, accessibility, efficiency and robustness in computer programs.

SYLLABUS PLAN - summary of the structure and academic content of the module

Client-Side Development
The Hypertext Markup Language (HTML)
The Document Object Model (DOM)
Cascading Style Sheets (CSS)
A client-side scripting language
Server-side Development
The Hypertext Transfer Protocol (HTTP)
A server-side programming language
Processing input data
Accessing databases
Managing state
Maintaining sessions
Ensuring security

LEARNING AND TEACHING

LEARNING ACTIVITIES AND TEACHING METHODS (given in hours of study time)

Scheduled Learning & Teaching Activities	33.00	Guided Independent Study	117.00	Placement / Study Abroad	0.00

DETAILS OF LEARNING ACTIVITIES AND TEACHING METHODS

Category	Hours of study time	Description
Scheduled learning and teaching activities	22	Lectures
Scheduled learning and teaching activities	11	Computer-based workshops
Guided independent study	40	Independent assignments
Guided independent study	77	Private study

ASSESSMENT

FORMATIVE ASSESSMENT - for feedback and development purposes; does not count towards module grade

Form of Assessment	Size of Assessment (e.g. duration/length)	ILOs Assessed	Feedback Method

SUMMATIVE ASSESSMENT (% of credit)

Coursework	30	Written Exams	70	Practical Exams	0

DETAILS OF SUMMATIVE ASSESSMENT

Form of Assessment	% of Credit	Size of Assessment (e.g. duration/length)	ILOs Assessed	Feedback Method
Web development exercise	30	A client-side program	1,2,4 5,,6,7	Written feedback

Form of Assessment	% of Credit	Size of Assessment (e.g. duration/length)	ILOs Assessed	Feedback Method
Examination (Closed Book)	70	2 hours - Summer Exam Period	1,3,4,6,7	Orally, on request

DETAILS OF RE-ASSESSMENT (where required by referral or deferral)

Original Form of Assessment	Form of Re-assessment	ILOs Re-assessed	Time Scale for Re-assessment
Web development exercise	Web development exercise	1,2,4, 5, 6,7	Over the Summer with a deadline in August
Examination	Examination	1,3,4,6,7	August Ref Def Period

RE-ASSESSMENT NOTES

RESOURCES

INDICATIVE LEARNING RESOURCES - The following list is offered as an indication of the type & level of information that you are expected to consult. Further guidance will be provided by the Module Convener

Basic reading:

ELE: Over the Summer with a deadline in August

Web based and Electronic Resources:

Other Resources:

Reading list for this module:
There are currently no reading list entries found for this module.

CREDIT VALUE	15	**ECTS VALUE**	7.5
PRE-REQUISITE MODULES	ECM1413		
CO-REQUISITE MODULES	ECM1410		
NQF LEVEL (FHEQ)	5	**AVAILABLE AS DISTANCE LEARNING**	No
ORIGIN DATE	Tuesday 10 July 2018	**LAST REVISION DATE**	Tuesday 10 July 2018
KEY WORDS SEARCH	Web, programming		