

MODULE SPECIFICATION

Name of Module		Design and Implementation in Web Environment					
Parent School/Dept		Computer Science/Information Systems					
Programme(s) where module is offered		BSc Computer Science with Electrical Engineering; BSc Computer Science with Economics; BSc Computer Science with Business; BSc Computer Science with International Relations; BSc Computer Science with Political Science; BSc Information Systems with Electrical Engineering; BSc Information Systems with Economics; BSc Information Systems with Business; BSc Information Systems with International Relations; BSc Information Systems with Political Science;					
Status (core, option, free choice)		Core		Pre-Requisite Modules or Qualifications		None	
FHEQ Level	5	Unit Value	6 ECTS	Module Code	CS270	Module coordinator	Samir Ribić
Term taught		Spring		Applicable From		2016	

Educational Aims of the Module

The module provides students with an overview of the Web environment and the principles of Web design and offers opportunities for students to develop their HTML, CSS, PHP, MySQL, JavaScript and visual design skills along the way. In addition, through practical work, students will develop knowledge and enhance their skills for designing and developing static and dynamic web pages using these technologies.

Module Outline/Syllabus

- Web Basics and Concepts
- Creating Web Pages: HTML Basics
- Controlling Page Style: CSS
- Layout with Styles: CSS
- Design Basics
- Colour and Graphic
- Lists and Tables
- Forms and Form Processing
- Responsive Design and Web Fonts
- Video, Audio and Multimedia
- Client-side Scripting: JavaScript
- HTTP and Web server and CGI principles
- Programming with PHP
- Creating Dynamic Web Sites
- Introduction to MySQL
- Using PHP with MySQL
- Cookies and Sessions
- XML basics

Student Engagement Hours

Type	Number per Term	Duration	Total Time
Lectures	30	2 hours	60 hours
Tutorials	15	2 hours	30 hours
Total Guided/Independent Learning Hours			60 hours
Total Contact Hours			90 hours
Total Engagement Hours			150 hours

Assessment Method Summary

Type	Number Required	Duration / Length	Weighting	Timing/Submission Deadline
Final exam	1	180 minutes	50%	End of semester
Mid-term exam	1	90 minutes	15%	Mid-semester

Quiz	3	90 minutes	10%	Weeks 6, 9 and 12
Project (group)	1	3,000 words	25%	Week 14

Module Outcomes

<p><u>Intended Learning Outcomes:</u></p> <ol style="list-style-type: none"> 1. Develop both static and dynamic web sites and applications 2. Theoretical skills in static and dynamic web environments 3. Practical skills in the development of a front and backend 4. Knowledge of various tools needed for proper web development 	→	<p><u>Teaching and Learning Strategy:</u></p> <ol style="list-style-type: none"> 1. Practical sessions on implementing static and dynamic web sites and applications (ILO:1-4) 2. Lectures provide a theoretical background on various aspects of web design and development (ILO:2) 3. Labs provide a series of development exercises to apply the theory (ILO:1-4) 4. Group project enables students to develop communication skills and apply what they have learnt during the module onto practical problem (ILO:1-4)
	→	<p><u>Assessment Strategy</u></p> <ol style="list-style-type: none"> 1. Mid-term exam (ILO: 1,2) 2. Final exam (ILO: 1-4) 3. Quiz (ILO: 1-3) 4. Project (ILO: 1-4)
<p><u>Practical Skills</u></p> <ol style="list-style-type: none"> 1. Learning and using HTML and CSS in practice 2. Using MySQL databases 3. Learning and using PHP for dynamic web application development 4. Learning other web-based concepts: JavaScript, OOP 	→	<p><u>Teaching and Learning Strategy:</u></p> <ol style="list-style-type: none"> 1. Tutorials with tutor-lead support (PS: 1-4) 2. Project (PS: 1-4) 3. Use of quizzes to test student subject knowledge (PS: 1-3) 4. Midterm exam done on computer (PS: 1)
	→	<p><u>Assessment Strategy</u></p> <ol style="list-style-type: none"> 1. Project (PS: 1-4) 2. Quiz (PS: 1-3) 3. Mid-term exam (PS: 1) 4. Final exam (PS: 1-4)
<p><u>Transferable Skills</u></p> <ol style="list-style-type: none"> 1. Ability to solve problems 2. Ability to effectively present solutions in both written and verbal formats 3. Ability to meet deadlines 4. Ability to work creatively and flexibly with others as part of a team 	→	<p><u>Teaching and Learning Strategy:</u></p> <ol style="list-style-type: none"> 1. Lectures (TS: 1) 2. Tutorials (TS: 1-4) 3. Problem-based learning (TS: 1) 4. Project (TS: 2-4)
	→	<p><u>Assessment Strategy</u></p> <ol style="list-style-type: none"> 1. Quiz (TS: 1) 2. Mid-term exam (TS: 1) 3. Project (TS: 1-4) 4. Final exam (TS: 1)

Key Texts and/or other learning materials

Set Text

- Castro E. and Hyslop B., (2013), HTML and CSS Visual QuickStart Guide, 8th Edition, Peachpit Press
- Larry Ullman, (2011), PHP and MySQL for Dynamic Web Sites, 4th Edition, Peachpit Press

Supplementary Materials

- Paul Deitel, (2007), Internet & World Wide Web: How to Program, 4th Edition, Prentice Hall

Please note: This specification provides a concise summary of the main features of the module and the learning outcomes that a typical student might reasonably be expected to achieve and demonstrate if he/she takes full advantage of the learning opportunities that are provided. More detailed information on the learning outcomes, content and teaching, learning and assessment methods of each module and programme can be found in the departmental or programme handbook. The accuracy of the information contained in this document is reviewed annually by the University of Buckingham and may be checked by the Quality Assurance Agency.

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