Module Descriptor

Title	Server-Side Web Development		
Session	2025/26	**Status**	Published
Code	COMP11120	**SCQF Level**	11
Credit Points	20	**ECTS (European Credit Transfer Scheme)**	10
School	**Computing, Engineering and Physical Sciences**		
Module Co-ordinator	Graeme McRobbie		

Summary of Module

This module begins by introducing all the core technologies it covers, and then walks you through the installation of a web development server. You will then be ready to work through the examples and exercises given in this module.

You will gain a grounding in the PHP programming language, covering the basics of syntax, arrays, functions, and object-oriented programming. Then, with PHP under your belt, you will move on to the MySQL database system, where you will learn everything from how MySQL databases are structured to how to generate complex queries.

After that, you will learn how you can combine PHP and MySQL to start creating your own dynamic web pages by integrating forms and other HTML features. You will then get down to the nitty-gritty practical aspects of PHP and MySQL development by learning a variety of useful functions and how to manage cookies and sessions, as well as how to maintain a high level of security.

Along the way, you will find plenty of advice on good programming practices and tips that can help you find and solve hard-to-detect programming errors. There are also plenty of links to websites containing further details on the topics covered.

This module will work to develop a number of the key 'I am UWS' Graduate Attributes to make those who complete this module.

Universal: critical thinker; ethically-minded; and research-minded Work Ready: problem-solver; effective communicator; and ambitious Successful: autonomous; resilient; and driven

Module Delivery Method	On-Campus[1] ☒	Hybrid[2] ☐	Online[3] ☐	Work -Based Learning[4] ☐
Campuses for Module Delivery	☐ Ayr ☐ Dumfries	☐ Lanarkshire ☒ London ☒ Paisley	☐ Online / Distance Learning ☐ Other (specify)	

Terms for Module Delivery	Term 1	☒	Term 2	☒	Term 3	☒
Long-thin Delivery over more than one Term	Term 1 – Term 2	☐	Term 2 – Term 3	☐	Term 3 – Term 1	☐

Learning Outcomes	
L1	Demonstrate a critical understanding of the technologies and tools available for developing dynamic web applications
L2	Make informed judgments in selecting a range of technologies and tools for developing a dynamic web application, and to communicate the rationale for the judgments arrived at
L3	Apply knowledge, skill and understanding in planning and developing a dynamic web application
L4	N/A
L5	N/A

Employability Skills and Personal Development Planning (PDP) Skills	
SCQF Headings	**During completion of this module, there will be an opportunity to achieve core skills in:**
Knowledge and Understanding (K and U)	**SCQF 11** Demonstrate a critical understanding of server side coding and database connectivity
Practice: Applied Knowledge and Understanding	**SCQF 11** Use a range of specialised techniques and tools in developing a dynamic web application to meet a given set of requirements
Generic Cognitive skills	**SCQF 11**

[1] Where contact hours are synchronous/ live and take place fully on campus. Campus-based learning is focused on providing an interactive learning experience supported by a range of digitally-enabled asynchronous learning opportunities including learning materials, resources, and opportunities provided via the virtual learning environment. On-campus contact hours will be clearly articulated to students.

[2] The module includes a combination of synchronous/ live on-campus and online learning events. These will be supported by a range of digitally-enabled asynchronous learning opportunities including learning materials, resources, and opportunities provided via the virtual learning environment. On-campus and online contact hours will be clearly articulated to students.

[3] Where all learning is solely delivered by web-based or internet-based technologies and the participants can engage in all learning activities through these means. All required contact hours will be clearly articulated to students.

[4] Learning activities where the main location for the learning experience is in the workplace. All required contact hours, whether online or on campus, will be clearly articulated to students

	Critically analyse requirements and design issues in developing a dynamic web application and interpret test results in evaluating its fitness for purpose
Communication, ICT and Numeracy Skills	**SCQF 11** Employ a range of software tools and development techniques in developing a dynamic web application. Communicate a design for a dynamic web application to a range of audiences
Autonomy, Accountability and Working with Others	**SCQF 11** Exercise autonomy and initiative to develop a dynamic web application

Prerequisites	**Module Code**	**Module Title**
	Other	
Co-requisites	**Module Code**	**Module Title**

Learning and Teaching	
In line with current learning and teaching principles, a 20-credit module includes 200 learning hours, normally including a minimum of 36 contact hours and maximum of 48 contact hours. The module will be delivered through a combination of lectures, which will develop the theoretical underpinning for the module content, and lab exercises which will enable you to develop the appropriate practical and analytical skills. All module materials will be published on the module's VLE.	
Learning Activities During completion of this module, the learning activities undertaken to achieve the module learning outcomes are stated below:	**Student Learning Hours** (Note: Learning hours include both contact hours and hours spent on other learning activities)
Lecture / Core Content Delivery	12
Laboratory / Practical Demonstration / Workshop	36
Asynchronous Class Activity	24
Independent Study	128
Please select	
Please select	
TOTAL	200

Indicative Resources
The following materials form essential underpinning for the module content and ultimately for the learning outcomes: PHP 7 Solutions: Dynamic Web Design Made Easy David Powers* Beginning PHP and MySQL: From Novice to Professional Frank M. Kromann* Practical PHP, MySQL, and MariaDB Website Databases: A Simplified Approach to Developing Database- Driven Website

Adrian W. West & Steve Prettyman

Pro PHP and jQuery

Jason Lengstorf & Keith Wald*

PHP and MySQL Recipes: A Problem-Solution Approach Frank M. Kromann*

Learn PHP: Object-Oriented Modular Programming using HTML5, CSS3, JavaScript, XML, JSON, and MySQL Steve Prettyman*

PHP 7 Quick Scripting Reference by Mikael Olsson Mikael Olsson*

(N.B. Although reading lists should include current publications, students are advised (particularly for material marked with an asterisk*) to wait until the start of session for confirmation of the most up-to-date material)

Attendance and Engagement Requirements

In line with the Student Attendance and Engagement Procedure, Students are academically engaged if they are regularly attending and participating in timetabled on-campus and online teaching sessions, asynchronous online learning activities, course-related learning resources, and complete assessments and submit these on time.

For the purposes of this module, academic engagement equates to the following:

The School of Computing, Engineering and Physical Sciences considers attendance and engagement to mean a commitment to attending, and engaging in, timetabled sessions. You will scan your attendance via the scanners each time you are on-campus and you will login to the VLE several times per week. Where you are unable to attend a timetabled learning session due to illness or other circumstance, you should notify the Programme Leader that you cannot attend. Across the School an 80% attendance threshold is set. If you fall below this, you will be referred to the Student Success Team to see how we can best support your studies.

Equality and Diversity

The University's Equality, Diversity and Human Rights Procedure can be accessed at the following link: UWS Equality, Diversity and Human Rights Code.

Aligned with the University's commitment to equality and diversity, this module supports equality of opportunity for students from all backgrounds and learning needs. Using the VLE, material will be presented electronically in formats that allow flexible access and manipulation of content. This module complies with University regulations and guidance on inclusive learning and teaching practice. This module has lab-based teaching and as such you are advised to speak to the Module Co-ordinator to ensure that specialist assistive equipment, support provision and adjustment to assessment practice can be put in place, in accordance with the University's policies and regulations.

(N.B. Every effort will be made by the University to accommodate any equality and diversity issues brought to the attention of the School)

Supplemental Information

Divisional Programme Board	**Computing**
Overall Assessment Results	☐ **Pass / Fail** ☒ **Graded**
Module Eligible for Compensation	☐ **Yes** ☒ **No** **If this module is eligible for compensation, there may be cases where compensation is not permitted due to**

	programme accreditation requirements. Please check the associated programme specification for details.
School Assessment Board	Business & Applied Computing
Moderator	TBC
External Examiner	R Menzies
Accreditation Details	
Module Appears in CPD catalogue	☐ **Yes** ☒ **No**
Changes / Version Number	1.1

Assessment (also refer to Assessment Outcomes Grids below)
Assessment 1
A class test (practical) under strict examination conditions. The class test (practical) is intended to assess the student's understanding of the principles underpinning the technologies and frameworks studied in the module. The class test (practical) is worth 40% of the overall mark.
Assessment 2
A portfolio of practical work demonstrating the practical application of web development technologies and frameworks in producing a web-based solution to a problem. The portfolio of practical work is worth 60% of the overall mark
Assessment 3
(N.B. (i) Assessment Outcomes Grids for the module (one for each component) can be found below which clearly demonstrate how the learning outcomes of the module will be assessed. (ii) An indicative schedule listing approximate times within the academic calendar when assessment is likely to feature will be provided within the Student Module Handbook.)

Component 1							
Assessment Type	**LO1**	**LO2**	**LO3**	**LO4**	**LO5**	**Weighting of Assessment Element (%)**	**Timetabled Contact Hours**
Class test (practical)	☒	☐	☐	☐	☐	40	2

Component 2							
Assessment Type	**LO1**	**LO2**	**LO3**	**LO4**	**LO5**	**Weighting of Assessment Element (%)**	**Timetabled Contact Hours**
Portfolio of practical work	☐	☐	☐	☐	☐	60	0

Component 3

Assessment Type	LO1	LO2	LO3	LO4	LO5	Weighting of Assessment Element (%)	Timetabled Contact Hours
	☐	☐	☐	☐	☐		
Combined total for all components						100%	2 hours

Change Control

What	When	Who
Attendance, EDI and External Examiner updated	22/01/2025	A Adamson