



MODULE SPECIFICATION

Part 1: Information			
Module Title	Web Application Construction [TSI]		
Module Code	UFCFQW-6-1	Level	Level 4
For implementation from	2021-22		
UWE Credit Rating	6	ECTS Credit Rating	3
Faculty	Faculty of Environment & Technology	Field	Computer Science and Creative Technologies
Department	FET Dept of Computer Sci & Creative Tech		
Module Type:	Standard		
Pre-requisites	None		
Excluded Combinations	None		
Co-requisites	None		
Module Entry Requirements	None		
PSRB Requirements	None		

Part 2: Description
<p>Educational Aims: The aim of this module is to teach students to create 3-tier architecture-based web applications. Discuss complex web application design and implementation principles</p> <p>Outline Syllabus: Course overview. Java & JVM; JSP & Servlets, simple web application using standard Java libraries. Version control systems; Presentation layer. Java Servlet, JSP, JSF technologies. Wicket framework; Enterprise web application architecture. Domain-driven design; Use of PHP programming language; Data access and persistence; Clean code, unit and functional testing automation; Web application security; Browser-based application technologies; Challenges of high load web applications.</p> <p>Teaching and Learning Methods: Learning and teaching will be provided to students in two forms: lectures and labs. During lectures, theoretical aspects of the course will be provided to students by the teaching staff. Lectures will be supported by presentation published and available to the students on e.tsi.lv under the module section. Also, additional materials, like code</p>

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examples, text books, publications on the internet, videos etc will be presented in e.tsi.lv.
During labs, each student receives an individual task to perform

Part 3: Assessment

This module assessment is split into two components (A – Exam, B – Labs):

A1 - final 2-hour examination which will assess the students understanding of taught material that forms part of the learning outcomes but cannot easily be assessed through practical tasks.

B1 – series of labs exploring basic principles of web application development using PHP and JAVA programming languages and HTML. An application and its source code should be provided to the teaching staff in form of the report

B2 - in-class test, multiple choice tests (for each topic)

First Sit Components	Final Assessment	Element weighting	Description
Examination - Component A	✓	20 %	Examination
Portfolio - Component B		52 %	Series of practical tasks (labs), exploring basic principles of programming using HTML, CSS, JavaScript, Bootstrap. The labs lead the production of an individual site which encompasses skills acquired through this module. All tasks should be accompanied with a report.
In-class test - Component B		28 %	multiple choice tests (for each topic)
Resit Components	Final Assessment	Element weighting	Description
Examination - Component A		20 %	Examination
Portfolio - Component B		52 %	Series of practical tasks (labs), exploring basic principles of programming using HTML, CSS, JavaScript, Bootstrap. The labs lead the production of an individual site which encompasses skills acquired through this module. All tasks should be accompanied with a report.
In-class test - Component B		28 %	12 multiple choice tests (for each topic)

Part 4: Teaching and Learning Methods

Learning Outcomes	On successful completion of this module students will achieve the following learning outcomes:	
	Module Learning Outcomes	Reference
	Understand and apply the basics of web-application development technologies	MO1
	Understand the principles and stages of development of Web sites	MO2
	Develop webpages using HTML, control web-page elements using CSS, add dynamic elements to the page using JavaScript	MO3
	Create webpages using Front-end Framework Bootstrap	MO4
	Analyse, design, implement and test web applications using widespread tools and technologies	MO5

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Contact Hours	Independent Study Hours:	
	Independent study/self-guided study	48
	Total Independent Study Hours:	48
	Scheduled Learning and Teaching Hours:	
	Face-to-face learning	32
	Total Scheduled Learning and Teaching Hours:	32
	Hours to be allocated	60
	Allocated Hours	80
Reading List	<p>The reading list for this module can be accessed via the following link:</p> <p>https://rl.talis.com/3/uwe/lists/1568A711-4A51-E933-C913-91FAB3635844.html?lang=en-gb&login=1</p>	

Part 5: Contributes Towards

This module contributes towards the following programmes of study:

Computer Science and Software Development [Oct][FT][TSI][4yrs] BSc (Hons) 2020-21

Computer Science and Software Development [Feb][FT][TSI][4yrs] BSc (Hons) 2020-21