

Module Specification

Web Programming

Version: 2021-22, v3.0, 17 Feb 2022

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Part 1: Information

Module title: Web Programming

Module code: UFCFB3-30-1

Level: Level 4

For implementation from: 2021-22

UWE credit rating: 30

ECTS credit rating: 15

Faculty: Faculty of Environment & Technology

Department: FET Dept of Computer Sci & Creative Tech

Partner institutions: None

Delivery locations: Frenchay Campus, Global College of Engineering and Technology (GCET), Northshore College of Business and Technology, Taylors University

Field: Computer Science and Creative Technologies

Module type: Standard

Pre-requisites: None

Excluded combinations: None

Co-requisites: None

Continuing professional development: No

Professional, statutory or regulatory body requirements: None

Part 2: Description

Overview: Not applicable

Features: Not applicable

Educational aims: See Learning Outcomes

Page 2 of 8 21 February 2022 **Outline syllabus:** N.B. It is not intended that the following list of topics be in chronological order of presentation. For example the programming stream could be presented over the whole year as part of the scheduled lectures.

Introduction to the module: WWW, web programming and web development

Future trends for the WWW and introduction to web frameworks

Development issues (covered as appropriate throughout module) LESP issues including usability and accessibility, Testing, Version control, green or sustainable aspects

Programming and scripting languages used to develop assignment website e.g. HTML, CSS, JavaScript, Python or PHP both running on XAMPP, also JQuery, Ajax, JSON, REST

Responsive Web Design

Web Client and Web Server

Browsers, Terminal utilities: Apache web server Internet and WWW basics TCP/IP stack concepts, HTTP, FTP HTML/CSS HTML 4.01/5 CSS/2/3

Client-server interaction: CGI, server side scripting e.g. Python or PHP

Database:

DB fundamentals

SQL –commands mySQL – using phpMyAdmin to create and administer DBs

Part 3: Teaching and learning methods

Teaching and learning methods: Scheduled learning:

Lectures are used to present basic concepts and context and provide an introduction to the laboratory work and independent learning. Laboratory sessions provide space for students to initiate practice on the materials deriving from the lectures whilst being able to receive personal support as required. Later in the year the laboratory sessions provide a space for teams and tutors to interact during the website development process.

Independent learning:

Students are expected to work outside scheduled classes on practice and assignment work. During the team-based assignment, students are also expected to self-manage their teams in terms of arranging meetings, allocating work and monitoring progress.

This module will involve 6 hours contact time per fortnight. The time will be more or less equally divided between lecture sessions and laboratory sessions

Activity (hrs) Contact time (72) Assimilation and development of knowledge (148) Exam preparation (20) Coursework preparation (60) Total study time (300)

Module Learning outcomes: On successful completion of this module students will achieve the following learning outcomes.

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MO1 Identify and define common Internet/WWW concepts

MO2 Understand, select and use a range of relevant web technologies to facilitate the development of basic websites

MO3 Understand and use web servers efficiently and securely to host small websites

MO4 Create relatively complex SQL databases and use websites to interface with these databases

MO5 Consider human factors such as accessibility requirements when designing websites.

MO6 Work individually or as a team member to reflect on the development process of a small website

Hours to be allocated: 300

Contact hours:

Independent study/self-guided study = 228 hours

Face-to-face learning = 72 hours

Total = 300

Reading list: The reading list for this module can be accessed at readinglists.uwe.ac.uk via the following link <u>https://uwe.rl.talis.com/modules/ufcfb3-</u> <u>30-1.html</u>

Part 4: Assessment

Assessment strategy: A: Group Demo and Presentation

The bulk of assessment is concentrated around a year-long group-based development of a small website and is worth 70% of the total module mark.

This assessment strategy provides continual feedback opportunities and allows students to develop their skills with the materials being presented in the lectures and

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laboratory sessions. The group-based working also provides numerous peer-learning opportunities.

Members of the group normally share the mark awarded for group-based activities. Individual assessment and feedback is also provided within the assessment strategy.

Each group will be expected to present their finished website to their peers and tutors in a controlled-conditions environment together with PowerPoint slides illustrating both group and individual programming skills.

B: Worksheet Assessments

The other assessment is a series of five individual worksheets that must be signed within a designated Practical session in the presence of the student and the tutor. This is so that feedback can be given regarding the progress of the student, and where that student needs to improve.

Each worksheet attracts equal marks so as the total mark for the worksheets is 30% of the total module mark, each worksheet is worth a maximum of 6% of the module marks.

If any worksheet is presented at a Practical subsequent to that designated, the tutor may at their discretion allow a proportion of the maximum mark. This would normally be up to 50% of the maximum for the worksheet i.e., 3% of the total mark.

The GCET delivery of the resit online exam is a demo and presentation. It was agreed that GCET can deliver the exam in a different way to UWE for in-country reasons for 2021/22 and 2022/23 providing there is no change to the UWE assessment during this time.

Assessment components:

Presentation - Component A (First Sit) Description: Group demo and presentation

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Weighting: 70 % Final assessment: Yes Group work: Yes Learning outcomes tested: MO1, MO2, MO3, MO4, MO5, MO6

Practical Skills Assessment - Component B (First Sit)

Description: A series of individual worksheet assessments throughout the 2 semesters carried out at designated Practical sessions. Weighting: 30 % Final assessment: No Group work: No Learning outcomes tested: MO2, MO3, MO4, MO5

Examination (Online) - Component A (Resit)

Description: Online Examination Weighting: 70 % Final assessment: Yes Group work: No Learning outcomes tested:

Report - Component B (Resit)

Description: Individual website code and written report Weighting: 30 % Final assessment: No Group work: No Learning outcomes tested:

Part 5: Contributes towards

This module contributes towards the following programmes of study:

Software Engineering [Sep][FT][Frenchay][3yrs] BSc (Hons) 2021-22

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Software Engineering [Sep][SW][Frenchay][4yrs] BSc (Hons) 2021-22

Software Engineering {Dual} [Aug][FT][Taylors][3yrs] BSc (Hons) 2021-22

Software Engineering {Dual} [Mar][FT][Taylors][3yrs] BSc (Hons) 2021-22

Software Engineering [Jan][FT][Northshore][3yrs] BSc (Hons) 2021-22

Computer Security and Forensics {Foundation} [Feb][FT][GCET][4yrs] BSc (Hons) 2020-21

Computer Security and Forensics {Foundation} [Oct][FT][GCET][4yrs] BSc (Hons) 2020-21

Software Engineering {Foundation} [Feb][FT][GCET][4yrs] BEng (Hons) 2020-21

Software Engineering {Foundation} [Oct][FT][GCET][4yrs] BEng (Hons) 2020-21