



MODULE SPECIFICATION

| Part 1: Information | | | |
|---------------------------|--|--------------------|--|
| Module Title | Web Programming | | |
| Module Code | UFCFB3-30-1 | Level | Level 4 |
| For implementation from | 2020-21 | | |
| UWE Credit Rating | 30 | ECTS Credit Rating | 15 |
| 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 | | |

| Part 2: Description |
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| <p>Educational Aims: See Learning Outcomes</p> <p>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.</p> <p>Introduction to the module: WWW, web programming and web development</p> <p>Future trends for the WWW and introduction to web frameworks</p> <p>Development issues (covered as appropriate throughout module) LESP issues including usability and accessibility, Testing, Version control, green or sustainable aspects</p> <p>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</p> <p>Responsive Web Design</p> |

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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

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)

Part 3: Assessment

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 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

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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.

| First Sit Components | Final Assessment | Element weighting | Description |
|---|------------------|-------------------|---|
| Practical Skills Assessment - Component B | | 30 % | A series of individual worksheet assessments throughout the 2 semesters carried out at designated Practical sessions. |
| Examination (Online) - Component A | ✓ | 70 % | Group demo and presentation 24 hour window |
| Resit Components | Final Assessment | Element weighting | Description |
| Report - Component B | | 30 % | Individual website code and written report |
| Examination (Online) - Component A | ✓ | 70 % | Examination (2 hours) 24-hour window |

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 |
| | Identify and define common Internet/WWW concepts | MO1 |
| | Understand, select and use a range of relevant web technologies to facilitate the development of basic websites | MO2 |
| | Understand and use web servers efficiently and securely to host small websites | MO3 |
| | Create relatively complex SQL databases and use websites to interface with these databases | MO4 |
| | Consider human factors such as accessibility requirements when designing websites. | MO5 |
| | Work individually or as a team member to reflect on the development process of a small website | MO6 |
| Contact Hours | Independent Study Hours: | |
| | Independent study/self-guided study | 228 |
| | Total Independent Study Hours: | 228 |

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| | | |
|--------------|---|-----|
| | Scheduled Learning and Teaching Hours: | |
| | Face-to-face learning | 72 |
| | Total Scheduled Learning and Teaching Hours: | 72 |
| | Hours to be allocated | 300 |
| | Allocated Hours | 300 |
| Reading List | <p><i>The reading list for this module can be accessed via the following link:</i></p> <p>https://uwe.rl.talis.com/modules/ufcfb3-30-1.html</p> | |

Part 5: Contributes Towards

This module contributes towards the following programmes of study:

Computer Security and Forensics [Feb][FT][GCET][4yrs] BSc (Hons) 2019-20

Computer Security and Forensics [Oct][FT][GCET][4yrs] BSc (Hons) 2019-20

Computing {Foundation} [Sep][SW][Frenchay][5yrs] BSc (Hons) 2019-20

Computing {Foundation} [Sep][FT][Frenchay][4yrs] BSc (Hons) 2019-20