Module Specification

Advanced Technologies

Version: 2023-24, v4.0, 17 Apr 2023

Contents

Part 1: Information

Module title: Advanced Technologies

Module code: UFCFW3-30-3

Level: Level 6

For implementation from: 2023-24

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: Not in use for Modules

Field: Computer Science and Creative Technologies

Module type: Module

Pre-requisites: Creative and Physical Computing 2023-24, More Games in C++ 2023-24

Excluded combinations: None

Co-requisites: None

Continuing professional development: No

Professional, statutory or regulatory body requirements: None

Part 2: Description

Overview: Hardware and software technologies used in industry are constantly changing to meet new demands; Upon graduating, students will be expected to be able to respond to these trends to use suitable advanced and emerging technologies to provide suitable solutions to development problems. This module provides a platform for students to not only investigate a range of advanced technologies in

their field, but to do so in a setting which mimic one typical of industry, with output which will form a valuable component of their portfolio upon graduating.

Based on their programme of study students must have achieved either Creative and Physical Computing (Digital Media ONLY), or More Games in C++ 2023-24 (Games Tech ONLY) as a pre-requisite to this module.

Features: Not applicable

Educational aims: See Learning Outcomes

Outline syllabus: A set of disciplines specific real-life problems will be provided at the start of the module. Students will be expected to select which to address and, over the course of the module, research and develop small prototype programs, using appropriate advanced technologies from their field of study, that provide potential solutions to these problems. These prototypes will form their portfolio for the module.

The culmination of the module will require each student to present their prototype to a panel, followed by a brief Q and A session where students will be expected to discuss their implementation choices and their rationale behind it, as well as potential alternatives.

Part 3: Teaching and learning methods

Teaching and learning methods: Taught material specific to given topics will be presented through industry style master classes, delivered by expert staff or industry professions, and will be clustered at the start of the module.

It is expected that learning outside of the master classes will be largely self-directed. Students will be expected to follow links provided to suggested research to further investigate topics outside of taught sessions, before planning and implementing the prototype programs which address their chosen problems.

Support will be provided throughout the module through practical studio sessions,

with teaching staff overseeing the development of the student portfolios and giving advice on how to address potential implementation issues.

Activity (hrs)

Contact time (72)

Assimilation and development of knowledge (148)

Presentation preparation (20)

Portfolio preparation (60)

Total study time (300)

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

MO1 Assimilate and synthesise information from a range of resources to identify viable approaches to solve real-life discipline-related problems.

MO2 Employ a range of advanced technologies from their field of study to develop a portfolio of prototypes demonstrating potential solutions that correspond to given specifications.

MO3 Communicate solutions and respond to technical questions regarding the implementation strategies chosen.

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 https://uwe.rl.talis.com/modules/ufcfw3-30-3.html

Part 4: Assessment

Assessment strategy: Formative assessment:

Formative feedback is offered throughout the module, in the studio sessions, and students will encouraged to discuss both approaches and implementation details with teaching staff throughout.

Summative assessment is two-pronged:

The portfolio of prototypes will be assessed in terms of the suitability of the chosen approaches, the quality and suitability of the implementation, as well as the student's reflection on their own research, methodology and implementation.

The presentation/Q and A session will offer students an opportunity to demonstrate their prototypes to a panel to highlight key aspects of their functionality, and will assess how well they communicate and explain their development choices, and their awareness of alternative approaches.

Assessment components:

Presentation (First Sit)
Description: Presentation with follow up Q&A (15 minutes)
Weighting: 20 %
Final assessment: Yes
Group work: No
Learning outcomes tested: MO3

Portfolio (First Sit)
Description: Portfolio of prototype programs
Weighting: 80 %
Final assessment: No
Group work: No
Learning outcomes tested: MO1, MO2

Presentation (Resit)

Description: Presentation/viva (15 minutes)

Weighting: 20 %

Final assessment: Yes

Group work: No

Learning outcomes tested: MO3

Portfolio (Resit)

Description: Portfolio of prototype programs

Weighting: 80 %

Final assessment: No

Group work: No

Learning outcomes tested: MO1, MO2

Part 5: Contributes towards

This module contributes towards the following programmes of study:

Games Technology [Sep][FT][Frenchay][3yrs] BSc (Hons) 2021-22

Games Technology [Sep][SW][Frenchay][4yrs] BSc (Hons) 2020-21

Games Technology {Foundation} [Sep][FT][Frenchay][4yrs] BSc (Hons) 2020-21

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