



Module Specification

Advanced Technologies

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Part 1: Information

Module title: Advanced Technologies

Module code: UFCFW3-30-3

Level: Level 6

For implementation from: 2024-25

UWE credit rating: 30

ECTS credit rating: 15

College: College of Arts, Technology and Environment

School: CATE School of Computing and Creative Technologies

Partner institutions: None

Field: Computer Science and Creative Technologies

Module type: Module

Pre-requisites: Audio Process Design and Implementation 2023-24, 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. 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), More Games in C++ (Games Tech ONLY), or for students of Audio and Music Technology or Creative Music Technology ONLY, either Creative and Physical Computing or Audio Process Design and Implementation, as a pre-requisite to this module.

Features: Not applicable

Educational aims: See Learning Outcomes

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

The culmination of the module will require each student to present their prototypes where they will be expected to discuss their implementation choices and their rationale behind what they worked on, 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 discussion groups, delivered by research staff or industry professions, and will be clustered at the start of the module.

It is expected that learning outside of the timetabled sessions will be largely self-directed. Students will be expected to follow links provided to suggested research to further investigate topics outside of delivered 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

Reading list: The reading list for this module can be accessed at [readinglists.uwe.ac.uk](https://uwe.rl.talis.com/modules/ufcfw3-30-3.html) 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 are encouraged to discuss both approaches and implementation details with teaching staff and their peers, as well as potential clients.

Summative assessment is two-pronged:

The portfolio of prototypes will be assessed in terms of the suitability of the chosen approaches, the quality of output, and how well it meets the requirements. Students will reflect on each prototype showing consideration to their research and implementation.

The presentation submission will offer students an opportunity to show their progress at regular intervals, gaining feedback and suggestions from peers and staff. A final demonstration will allow students to showcase their prototypes, responding to questions provided by the module tutors.

Assessment tasks:

Presentation (First Sit)

Description: An 8-10 minute presentation responding to provided technical questions (requires submission).

Weighting: 20 %

Final assessment: Yes

Group work: No

Learning outcomes tested: MO3

Portfolio (First Sit)

Description: Portfolio of prototypes

Weighting: 80 %

Final assessment: No

Group work: No

Learning outcomes tested: MO1, MO2

Presentation (Resit)

Description: An 8-10 minute presentation responding to provided technical questions (requires submission).

Weighting: 20 %

Final assessment: Yes

Group work: No

Learning outcomes tested: MO3

Portfolio (Resit)

Description: Portfolio of prototypes

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 [Frenchay] BSc (Hons) 2022-23

Games Technology [Sep][SW][Frenchay][4yrs] BSc (Hons) 2021-22

Games Technology {Foundation} [Sep][FT][Frenchay][4yrs] BSc (Hons) 2021-22

Games Technology {Foundation} [Sep][SW][Frenchay][5yrs] BSc (Hons) 2020-21

Audio and Music Technology {Foundation} [Sep][FT][Frenchay][4yrs] BSc (Hons)
2021-22

Audio and Music Technology {Foundation} [Sep][SW][Frenchay][5yrs] BSc (Hons)
2020-21

Audio and Music Technology [Sep][SW][Frenchay][4yrs] BSc (Hons) 2021-22

Creative Music Technology [Sep][SW][Frenchay][4yrs] BSc (Hons) 2021-22

Creative Music Technology [Sep][SW][Frenchay][4yrs] BSc (Hons) 2021-22

Audio and Music Technology [Frenchay] BSc (Hons) 2022-23

Creative Music Technology [Frenchay] BSc (Hons) 2022-23