



MODULE SPECIFICATION

Part 1: Information			
Module Title	Mobile and Physical Computing		
Module Code	UFCF9G-30-2	Level	Level 5
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	Introductory Audio Programming 2020-21		
Excluded Combinations	None		
Co- requisites	None		
Module Entry requirements	None		

Part 2: Description
<p>Overview: Pre-requisites: Students must take one of Introductory Audio Programming UFCFF4-30-1 or Audio Technology UFCFH4-30-1.</p> <p>Educational Aims: See Learning Outcomes.</p> <p>Outline Syllabus: The syllabus includes: Hardware interfacing: sensor electronics, units and properties Software interfacing: graphical user interface, design and implementation HCI in context: editing/offline, performance Traditional HCI methods; "standards", benefits and limitations Interaction mechanisms and programming responses Tailoring interfaces for specific audio purposes Hardware and software methods and limitations; sensor techniques, new interfaces Application to specific target devices Wired and wireless communication technologies and protocols</p> <p>Teaching and Learning Methods: Theoretical and conceptual aspects of the module will be introduced by lecture on a weekly basis and, where appropriate, contextualised with practical demonstrations of application. Relevant reading material and sections from the course text should be read in preparation for each lecture. On average this will require a total of 3 hours</p>

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study each week.

Learners will apply the conceptual elements of taught material in weekly practical sessions where abilities in problem solving and implementation surrounding audio technology concepts will be developed. Learners are required to complete exercises, extend ideas, and develop further understanding independently of the timetabled sessions. On average this will require a total of 4 hours study each week.

Assignments will be staged throughout the year which will require students to complete additional unsupervised learning. Typically this will require 4 hours study each week although it should be anticipated that the majority of this time will be biased towards the assignment deadlines.

Contact Hours:

Contact time: 72 hours

Assimilation and development of knowledge: 148 hours

Exam preparation: 20 hours

Coursework preparation: 60 hours

Total study time: 300 hours

Part 3: Assessment

The examination will be used to establish learners' understanding of the module content as described in lectures and reading materials.

The assignments will be used to assess learners' practical skills in the application of music and audio technology systems. This will involve demonstrating an ability to create an extended piece of work beyond the examples seen in lectures and practicals. The assignment activity will be staged in order to allow progressive development of skills and understanding.

Formative assessment will be provided as part of the practical sessions. Individual feedback will be provided on the assignment and group (generic) feedback on the exam.

Marking of any group components of assignment work will include an opportunity for students to indicate individual contributions.

Assessment criteria will be supplied with the assignment specification and in example exam papers.

First Sit Components	Final Assessment	Element weighting	Description
Examination (Online) - Component A	✓	50 %	Online Exam (2 hours) 24 hour window
Practical Skills Assessment - Component B		25 %	Assignment 1
Practical Skills Assessment - Component B		25 %	Assignment 2
Resit Components	Final Assessment	Element weighting	Description
Examination (Online) - Component A	✓	50 %	Online Exam (2 hours) 24 hour window
Practical Skills Assessment - Component B		50 %	Assignment 1 (individual work)

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Part 4: Teaching and Learning Methods																	
Learning Outcomes	<p>On successful completion of this module students will achieve the following learning outcomes:</p> <table border="1"> <thead> <tr> <th style="text-align: left;">Module Learning Outcomes</th> <th style="text-align: left;">Reference</th> </tr> </thead> <tbody> <tr> <td>Design and create interactive music and audio systems using embedded and mobile technologies</td> <td>MO1</td> </tr> <tr> <td>Identify, contrast and utilise a range of electronic and graphical methods for acquiring and representing control data within music and audio contexts</td> <td>MO2</td> </tr> <tr> <td>Recognise and evaluate a range of programmatic interaction mechanisms and select appropriate methods for divergent audio applications</td> <td>MO3</td> </tr> <tr> <td>Analyse, apply and compare physical and graphical interactive methods within the context of Human Computer Interaction</td> <td>MO4</td> </tr> </tbody> </table>	Module Learning Outcomes	Reference	Design and create interactive music and audio systems using embedded and mobile technologies	MO1	Identify, contrast and utilise a range of electronic and graphical methods for acquiring and representing control data within music and audio contexts	MO2	Recognise and evaluate a range of programmatic interaction mechanisms and select appropriate methods for divergent audio applications	MO3	Analyse, apply and compare physical and graphical interactive methods within the context of Human Computer Interaction	MO4						
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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/ufcf9g-30-2.html</p>																

Part 5: Contributes Towards
<p>This module contributes towards the following programmes of study:</p> <p>Audio and Music Technology [Sep][SW][Frenchay][4yrs] BSc (Hons) 2019-20</p> <p>Audio and Music Technology [Sep][FT][Frenchay][3yrs] BSc (Hons) 2019-20</p> <p>Broadcast Audio and Music Technology [Sep][FT][Frenchay][3yrs] BSc (Hons) 2019-20</p> <p>Broadcast Audio and Music Technology [Sep][SW][Frenchay][4yrs] BSc (Hons) 2019-20</p> <p>Audio and Music Technology {Foundation} [Sep][SW][Frenchay][5yrs] BSc (Hons) 2018-19</p> <p>Audio and Music Technology {Foundation} [Sep][FT][Frenchay][4yrs] BSc (Hons) 2018-19</p>