

# **MODULE SPECIFICATION**

| Part 1: Information                              |  |  |  |  |  |  |  |
|--|--|--|--|--|--|--|--|
| Module Title                                     | Audio for Games                          |  |  |  |  |  |  |
| Module Code                                      | UFCFA6-15-3                              | Level  | Level 6                                    |  |  |  |  |
| For implementation from                          | 2018-19                                  |  |  |  |  |  |  |
| UWE Credit Rating                                | 15                                       | ECTS Credit Rating   | 7.5  |  |  |  |  |
| Faculty  | Faculty of Environment & Technology      | Field  | Computer Science and Creative Technologies |  |  |  |  |
| Department                                       | FET Dept of Computer Sci & Creative Tech |  |  |  |  |  |  |
| Contributes towards                              |  |  |  |  |  |  |  |
| Module type:                                     | Standard                                 |  |  |  |  |  |  |
| Pre-requisites Applied Audio Sy 2018-19, Audio R |  | ems 2018-19, Audio Process Design and Implementation cording 2018-19 |  |  |  |  |  |
| Excluded Combinations                            | None                                     | None   |  |  |  |  |  |
| Co- requisites                                   | None                                     | None   |  |  |  |  |  |
| Module Entry requirement                         | nts None                                 | None   |  |  |  |  |  |

# Part 2: Description

Educational Aims: See Learning Outcomes.

Outline Syllabus: Games development and production:

Typical games development roles. Development workflow. Platforms: desktop computers, consoles and handheld devices. Development systems: game engines, middleware.

Asset management:

Audio assets: copyright and licensing. Naming systems and databases. Audio compression formats.

Dialogue production:

Recording dialogue. Actor selection and direction. Localisation of audio assets in games (i.e., multiple languages).

Generative techniques:

Terminology: generative, interactive, adaptive, non-linear. Stochastic techniques: randomness,

#### STUDENT AND ACADEMIC SERVICES

probability, weighted randomness / probabilities distributions, Markov models. Algorithmic techniques: rules, linear mapping, exponential mapping, arbitrary mapping.

#### Generative music:

History of interactive, generative and stochastic music. Applying generative techniques to music.

#### Interactive sound effects:

Recording Foley and other sound effects. Sound design. Making believable sound effects in an interactive or game context. Applying generative techniques to sound effects. Controlling continuous sounds: wind, rain, engines. Triggering sounds: weapons, footsteps, thunder, doors.

### Testing and quality:

Importance of testing. Test suites. User testing. Quality control.

**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 1.5 hours 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 2 hours study each week.

Assignments will be staged throughout the year which will require students to complete additional unsupervised learning. Typically this will require 2 hours study each week although it should be anticipated that the majority of this time will be biased towards the assignment deadlines.

Contact time: 36 hours

Assimilation and development of knowledge: 74 hours

Exam preparation: 10 hours Coursework preparation: 30 hours Total study time: 150 hours

## Part 3: Assessment

The assignments and presentation 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 activities 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 presentation.

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

| First Sit Components                         | Final<br>Assessment | Element<br>weighting | Description                       |
|--|---------------------|----------------------|-----------------------------------|
| Practical Skills Assessment -<br>Component B |                     | 75 %                 | Practical assignment and write up |
| Performance - Component<br>A                 | <b>✓</b>            | 25 %                 | Interactive music presentation    |

# STUDENT AND ACADEMIC SERVICES

| Resit Components                             | Final<br>Assessment | Element<br>weighting | Description                       |
|--|---------------------|----------------------|-----------------------------------|
| Practical Skills Assessment -<br>Component B |                     | 75 %                 | Practical assignment and write up |
| Examination - Component A                    | ✓                   | 25 %                 | Exam (120 mins)                   |

|                      | Part 4: Teach   | ing and Learning Methods   |   |  |  |  |  |
|----------------------|---|--|---|--|--|--|--|
| Learning<br>Outcomes | On successful completion of this module students will be able to:   |  |   |  |  |  |  |
|                      | Module Learning Outcomes  |  |   |  |  |  |  |
|                      | MO1 Re  | Record, edit and prepare dialogue assets for playback in an interactive context such that the flow of speech is natural and believable   |   |  |  |  |  |
|                      | of  | Select, assemble and process sound effects assets for a range of game oriented sound types   |   |  |  |  |  |
|                      | so<br>au  | Utilise game audio middleware tools to implement believable soundscapes in games with specific reference to mixing, 3D audio behaviour and randomisation of appropriate parameters |   |  |  |  |  |
|                      |   | econstruct musical material for inter<br>namic soundtracks   | nstruct musical material for interactive playback to create nic soundtracks |  |  |  |  |
| Contact<br>Hours     | Contact Hours   |  |   |  |  |  |  |
|                      | Independent Study Hours:  |  |   |  |  |  |  |
|                      | Independent study/self-gu   | 114  |   |  |  |  |  |
|                      |   | Total Independent Study Hours:   | 114   |  |  |  |  |
|                      | Scheduled Learning and Teaching Hours:  |  |   |  |  |  |  |
|                      | Face-to-face learning   | 36   |   |  |  |  |  |
|                      | Total Schedule  | 36   |   |  |  |  |  |
|                      | Hours to be allocated   |  | 150   |  |  |  |  |
|                      | Allocated Hours   | 150  |   |  |  |  |  |
| Reading<br>List      | The reading list for this module can be accessed via the following link:  https://uwe.rl.talis.com/modules/ufcfa6-15-3.html |  |   |  |  |  |  |