MODULE SPECIFICATION

Part 1: Information			
Module Title	Architectural Acoustics		
Module Code	UFCFTJ-15-3	Level	Level 6
For implementation from	2019-20		
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		
Module type:	Standard		
Pre-requisites	Audio Process Design and Implementation 2019-20		
Excluded Combinations	None		
Co- requisites	None		
Module Entry requirements	None		

Part 2: Description

Educational Aims: See Learning Outcomes.

Outline Syllabus: The syllabus includes:

Fundamental concepts; sources and receivers; sound propagation, diffraction, refraction; reflection, scattering, transmission, absorption, damping, insulation, isolation; impulse responses; diffuse and free field conditions; excitation and resonance; image sources; echoes and reverberation; Sabine and non-Sabine spaces.

Properties of acoustic treatments within enclosed spaces; porous and resonant absorbers; diffusers; parallel and non-parallel surfaces; curved surfaces.

Quantifying the characteristics of acoustic environments; standardised measures, their benefits and limitations.

The application of acoustic principles and measures to the design and evaluation of interior performance environments associated with speech and music.

Acoustic measurement techniques.

Properties of acoustic transmission paths within buildings, and related remedial measures.

Acoustic simulation and estimation.

Teaching and Learning Methods: Teaching sessions will comprise a series of lectures and practicals based on the syllabus content. The lectures will introduce the underlying concepts and explore their application in typical situations. The practicals will involve the students simulating acoustic environments using specialist software. These techniques will also be directly relevant to the exam.

Support will also be provided via email and virtual learning environments.

Contact Hours:

Activity
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			
Component A: Exam. The exam will test the students' knowledge, understanding, and analytical skill related to the fundamental principles of acoustics, basic noise control techniques, and current standards.			
First Sit Components	**Final Assessment**	**Element weighting**	**Description**
Examination - Component A	✓	100 %	Examination (2 hours)
Resit Components	**Final Assessment**	**Element weighting**	**Description**
Examination - Component A	✓	100 %	Examination (2 hours)

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
Specify suitable acoustic requirements of buildings and spaces using standardised measures and techniques	MO1
Identify and quantify noise and vibration affecting buildings and determine if the design criteria have been achieved	MO2
Determine the acoustic design, or remedial treatments, required to achieve a suitable acoustic environment	MO3
Analyse the behaviour of sound in buildings and specialist facilities for the production and enjoyment of speech and music	MO4

Contact Hours

Independent Study Hours:	
Independent study/self-guided study	114
Total Independent Study Hours:	114
Scheduled Learning and Teaching Hours:	
Face-to-face learning	36
Total Scheduled Learning and Teaching Hours:	36
Hours to be allocated	150
Allocated Hours	150

Reading List

The reading list for this module can be accessed via the following link:

https://uwe.rl.talis.com/modules/ufcftj-15-3.html

Part 5: Contributes Towards

This module contributes towards the following programmes of study: