Module Descriptor

Title	Sound Reinforcement Systems		
Session	2025/26	**Status**	Published
Code	COMP07052	**SCQF Level**	7
Credit Points	20	**ECTS (European Credit Transfer Scheme)**	10
School	**Computing, Engineering and Physical Sciences**		
Module Co-ordinator	Derek Turner		

Summary of Module

From presentations and guided reading, students will gain an understanding of the range and type of the components which make up a modern sound reinforcement system. Principles of operation and device specifications will be considered. Audio components will include microphones, analogue and digital interconnections, mixing consoles, signal processing equipment, amplification, and speaker systems.

Practical demonstrations of audio signal path from source input to mixing console, processing, and amplification will provide students with the opportunity to practice sound reinforcement equipment connection and operation.

All relevant aspects of health and safety associated with live sound, including manual handling, will be discussed, and implemented.

Consideration will be given to the acoustic environments in which sound systems operate. This will include an introduction to sound propagation, the properties of sound waves and basic principles of acoustics.

Problem Based Learning (PBL) will take place in group work scenarios where the development of cognitive load theory (CLT) will be encouraged.

•This module embeds the key "I am UWS" graduate attributes and in particular: Work Ready: Knowledgeable, Digitally Literate and Problem-solver, Potential Leader Successful: Autonomous, Incisive, and Innovative Work Ready: Effective communicator, Influential and Motivated Professional

Module Delivery Method	On-Campus[1] ☒	Hybrid[2] ☐	Online[3] ☐	Work -Based Learning[4] ☐
Campuses for Module Delivery	☐ Ayr ☐ Dumfries	☐ Lanarkshire ☐ London ☒ Paisley	☐ Online / Distance Learning ☐ Other (specify)	

Terms for Module Delivery	Term 1 ☐		Term 2 ☒	Term 3 ☐	
Long-thin Delivery over more than one Term	Term 1 – Term 2 ☐		Term 2 – Term 3 ☐	Term 3 – Term 1 ☐	

Learning Outcomes	
L1	Demonstrate knowledge that is embedded in the main theories, concepts, and principles of acoustics in relation to sound reinforcement.
L2	Demonstrate an overall appreciation of the body of knowledge that constitutes relevant health and safety issues concerning live sound systems.
L3	Use a range of approaches to address defined and routine problems and issues in preparation for mixing a sound reinforced music performance
L4	Apply knowledge skills and understanding to a routine context through the set-up and usage of a live sound system
L5	

Employability Skills and Personal Development Planning (PDP) Skills	
SCQF Headings	**During completion of this module, there will be an opportunity to achieve core skills in:**
Knowledge and Understanding (K and U)	**SCQF 7** • Demonstrate a broad knowledge of the nature of waves and basic principles of acoustics. • Demonstrate a broad knowledge of P.A. equipment
Practice: Applied Knowledge and Understanding	**SCQF 7** • Apply acoustic principles to the configuration of P.A systems • Employ safe working practices in a professional environment. • Practice use of P.A. equipment

[1] Where contact hours are synchronous/ live and take place fully on campus. Campus-based learning is focused on providing an interactive learning experience supported by a range of digitally-enabled asynchronous learning opportunities including learning materials, resources, and opportunities provided via the virtual learning environment. On-campus contact hours will be clearly articulated to students.

[2] The module includes a combination of synchronous/ live on-campus and online learning events. These will be supported by a range of digitally-enabled asynchronous learning opportunities including learning materials, resources, and opportunities provided via the virtual learning environment. On-campus and online contact hours will be clearly articulated to students.

[3] Where all learning is solely delivered by web-based or internet-based technologies and the participants can engage in all learning activities through these means. All required contact hours will be clearly articulated to students.

[4] Learning activities where the main location for the learning experience is in the workplace. All required contact hours, whether online or on campus, will be clearly articulated to students

Generic Cognitive skills	**SCQF 7** • Make aesthetic judgements in a technical environment. • Think clearly under pressure in situations which may be unpredictable
Communication, ICT and Numeracy Skills	**SCQF 7** • Convey complex ideas in well-structured and coherent written format. • Communicate clearly with peers in a live situation. • Deal with numerate aspects of acoustics
Autonomy, Accountability and Working with Others	**SCQF 7** • Work within a small team sharing responsibilities in a live situation. • Work with supervision under pressure of time. • Take account of the safety of self and others at all times in a live situation.

Prerequisites	**Module Code**	**Module Title**
	Other	
Co-requisites	**Module Code**	**Module Title**

Learning and Teaching	
In line with current learning and teaching principles, a 20-credit module includes 200 learning hours, normally including a minimum of 36 contact hours and maximum of 48 contact hours. This module develops knowledge and practice through video presentations synchronous tutorials and hands-on practice. Students will gain initial experience of working with a networked digital PA system configured in the context of a music venue.	
Learning Activities During completion of this module, the learning activities undertaken to achieve the module learning outcomes are stated below:	**Student Learning Hours** (Note: Learning hours include both contact hours and hours spent on other learning activities)
Tutorial / Synchronous Support Activity	12
Laboratory / Practical Demonstration / Workshop	36
Independent Study	152
Please select	
Please select	
Please select	
TOTAL	200

Indicative Resources
The following materials form essential underpinning for the module content and ultimately for the learning outcomes:

Access to a modern audio mixing console and PA system is required.

Key texts are:

Reference Guide V1.6.0 Issue 1 Reference Guide (no date). Available at: https://www.allen-heath.com/content/uploads/2025/02/SQ_ReferenceGuide_V1_6_0_iss1.pdf (Accessed: 1st April 2025).

Loar, J. (2019). The sound system design primer. New York, Ny: Routledge.

Everest, F. Alton (2021) Master Handbook of Acoustics. S.L., Mcgraw-Hill Education.

Consultation of the following extension references will also be useful:

Boyce, T. (2020) Introduction to Live Sound Reinforcement: the science, the art, and the practice. Friessen Press

Biederman, B and Pattison P (2013) Basic Live Sound Reinforcement: A Practical Guide for Starting Live Audio, Routledge.

Reference to the following websites and others linked via Aula will provide extension resources.

“Dante Certification Program | Audinate | Dante AV Networking.”

https://www.getdante.com/resources/training/dante-certification-program/ . (Accessed 1st April 2024).

Health and Safety Executive

Sound Advice (2008) Available at: https://www.hse.gov.uk/pubns/priced/hsg260.pdf (Accessed: 16 April 2025)

Health and Safety Executive

Manual Handling at work (no date) Available at https://www.hse.gov.uk/msd/manual-handling/index.htm (Accessed: 01/04/2025)

LIVE SOUND REINFORCEMENT MICROPHONE TECHNIQUES (2014). Available at: https://www.shure.com/damfiles/default/global/documents/publications/en/performance-production/microphone_techniques_for_live_sound_reinforcement_english.pdf-3df433145fca686a736beeb5da588efa.pdf (Accessed: 1st April 2025).

(N.B. Although reading lists should include current publications, students are advised (particularly for material marked with an asterisk*) to wait until the start of session for confirmation of the most up-to-date material)

Attendance and Engagement Requirements

In line with the Student Attendance and Engagement Procedure, Students are academically engaged if they are regularly attending and participating in timetabled on-campus and online teaching sessions, asynchronous online learning activities, course-related learning resources, and complete assessments and submit these on time.

For the purposes of this module, academic engagement equates to the following:

Engagement for this module equates to submission of CW 1 and CW2, attendance at training in the safe handling and operation of live sound equipment. The School of Computing, Engineering and Physical Sciences considers attendance and engagement to mean a commitment to attending, and engaging in, timetabled sessions. You will scan your attendance via the scanners each time you are on-campus and you will login to the VLE several times per week. Where you are unable to attend a timetabled learning session due to illness or other circumstance, you should notify the Programme Leader that you cannot attend. Across the School an 80% attendance threshold is set. If you fall below this, you will be referred to the Student Success Team to see how we can best support your studies.

Equality and Diversity

The University's Equality, Diversity and Human Rights Procedure can be accessed at the following link: UWS Equality, Diversity and Human Rights Code.

This module is designed to provide equal opportunities for all students irrespective of their age, additional support requirements, gender, sexual orientation, race, colour, nationality, ethnicity, religion, beliefs, or sexual orientation. Students may take differing viewpoints with respect to their cultural, religious or family backgrounds. Reasonable adjustments can be made if related issues arise. Aligned with the University's commitment to equality and diversity, this module supports equality of opportunity for students from all backgrounds and learning needs. Using the VLE, material will be presented electronically in formats that allow flexible access and manipulation of content. This module complies with University regulations and guidance on inclusive learning and teaching practice. This module has lab-based teaching and as such you are advised to speak to the Module Co-ordinator to ensure that specialist assistive equipment, support provision and adjustment to assessment practice can be put in place, in accordance with the University's policies and regulations.

(N.B. Every effort will be made by the University to accommodate any equality and diversity issues brought to the attention of the School)

Supplemental Information

Divisional Programme Board	**Computing**
Overall Assessment Results	☐ **Pass / Fail** ☒ **Graded**
Module Eligible for Compensation	☒ **Yes** ☐ **No** **If this module is eligible for compensation, there may be cases where compensation is not permitted due to programme accreditation requirements. Please check the associated programme specification for details.**
School Assessment Board	Creative Computing
Moderator	Colin Grassie
External Examiner	G N Aurriccio
Accreditation Details	JAMES
Module Appears in CPD catalogue	☐ **Yes** ☒ **No**

Changes / Version Number	2025.v01

Assessment (also refer to Assessment Outcomes Grids below)
Assessment 1
(25%) Class Test
Assessment 2
(75%) Practical (Group): System connection configuration and operation
Assessment 3
(N.B. (i) Assessment Outcomes Grids for the module (one for each component) can be found below which clearly demonstrate how the learning outcomes of the module will be assessed. (ii) An indicative schedule listing approximate times within the academic calendar when assessment is likely to feature will be provided within the Student Module Handbook.)

Component 1							
Assessment Type	**LO1**	**LO2**	**LO3**	**LO4**	**LO5**	**Weighting of Assessment Element (%)**	**Timetabled Contact Hours**
Class test	☒	☒	☐	☐	☐	25	

Component 2							
Assessment Type	**LO1**	**LO2**	**LO3**	**LO4**	**LO5**	**Weighting of Assessment Element (%)**	**Timetabled Contact Hours**
Practical skills observation group assessment	☐	☐	☒	☒	☐	75	

Component 3							
Assessment Type	**LO1**	**LO2**	**LO3**	**LO4**	**LO5**	**Weighting of Assessment Element (%)**	**Timetabled Contact Hours**
	☐	☐	☐	☐	☐		
Combined total for all components						100%	hours

Change Control

What	When	Who