

Sound Technology

Module Information

2022.01, Approved

Summary Information

Module Code	4605AMPCC
Formal Module Title	Sound Technology
Owning School	Engineering
Career	Undergraduate
Credits	20
Academic level	FHEQ Level 4
Grading Schema	40

Teaching Responsibility

LJMU Schools involved in Delivery
LJMU Partner Taught

Partner Teaching Institution

Institution Name
Coleg Cambria

Learning Methods

Learning Method Type	Hours
Lecture	24
Practical	8
Tutorial	12

Module Offering(s)

Display Name	Location	Start Month	Duration Number Duration Unit
JAN-PAR	PAR	January	12 Weeks

Aims and Outcomes

Aims	To introduce the principles of sound systems and sound waves, which can be applied to a wide range of acoustics and audio subjects.
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After completing the module the student should be able to:

Learning Outcomes

Code	Number	Description
MLO1	1	Calculate relevant acoustic properties of typical environments and equipment
MLO2	2	Propose solutions to problematic environments and equipment
MLO3	3	Manipulate acoustic properties such as standard pressure level, intensity level, acoustic impedance etc to solve technical and practical problems

Module Content

Outline Syllabus	The nature of sound Wavelength / Frequency Spectra Sound pressure and intensity Inverse square law temporal considerations, Haas effect Sabine's equation, RT60 Room modes, standing waves, resonance, harmonics Sound proofing and sound treatment Loudness perception / fidelity Sound intensity, power and pressure levels Decibels (for acoustics) and standards Sound reproduction Loudspeaker design & testing Industry-standard software for emulating loudspeaker performance
Module Overview	
Additional Information	This module presents the fundamentals and principles of acoustics and audio systems. This module aligns to the following UN Sustainable Development Goals: 4 Quality Education 5 Gender Equality 8 Decent Work and Economic Growth 10 Reduced Inequalities

Assessments

Assignment Category	Assessment Name	Weight	Exam/Test Length (hours)	Module Learning Outcome Mapping
Practice	Room & equipment calculations	70	0	MLO2, MLO1
Practice	Acoustics	30	0	MLO3

Module Contacts

Module Leader

Contact Name	Applies to all offerings	Offerings
Colin Robinson	Yes	N/A

Partner Module Team

Contact Name	Applies to all offerings	Offerings

