

Summary Information

Module Code	4524STE
Formal Module Title	Creative Signal Processing
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
Liverpool Institute for Performing Arts

Learning Methods

Learning Method Type	Hours
Lecture	14
Workshop	36

Module Offering(s)

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

Aims and Outcomes

Aims	To provide the student with a thorough understanding of the range of signal processing options available to the audio engineer. This will build on the knowledge gained during both Core Recording Skills and Sound Technology Theory. The module will have two parallel paths; one that deals with the design of processing tools within a digital environment and the other that deals with the application of these tools to a variety of production scenarios. Additionally the content will connect many technical parameters to their associated aesthetic attributes and will focus on critical listening ability.
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After completing the module the student should be able to:

Learning Outcomes

Code	Number	Description
MLO1	1	Design their own signal processors within a software environment.
MLO2	2	Demonstrate a technical understanding of the design and application of audio signal processors.
MLO3	3	Apply a wide range of signal processing in both remedial and creative applications.
MLO4	4	Associate objective parameters with perceived subjective qualities and cultural conventions when making creative judgements.

Module Content

Outline Syllabus	Historical and Cultural Overview of Signal Processing Native Instruments Reaktor as a Processing Tool Timbral Processing Time Delay Processing Modulation Processing Reverberation Processing Dynamic Compression / Expansion Processing Psychoacoustic Processing Harmonic Distortion Processing Pitch Correction and Time Manipulation Processing Restoration Processing Creative Sound Design Combining Signal Processing
Module Overview	
Additional Information	Peter Philipson is the Module Leader (p.philipson@lipa.ac.uk)

Assessments

Assignment Category	Assessment Name	Weight	Exam/Test Length (hours)	Module Learning Outcome Mapping
Essay	Signal Processing Design Port	50	0	MLO1, MLO2
Practice	Corrective Signal Processing	50	0	MLO3, MLO4

Module Contacts

Module Leader

Contact Name	Applies to all offerings	Offerings
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Partner Module Team

Contact Name	Applies to all offerings	Offerings
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