

## Module Specification

**Module Title:** Sound Synthesis Project

<b>Module code:</b>	HFDSHR002	<b>NQF level:</b>	5
<b>Credit value:</b>	10	<b>Semester of study:</b>	2
<b>Module type:</b>	Optional	<b>Pre-requisites:</b>	N/A
<b>Available to:</b>	FdA Music Production, FdA Electronic Music Production		

### Module overview

This module explores theoretical models of sound synthesis along with their practical considerations through both analogue and digital technologies. Models include subtractive, additive, granular, and physical modelling. Students will learn how to use synthesis to design sound for their original compositions using both hardware and software synthesizers. The sessions will involve tutor led practical demonstrations, followed by in class practical tasks. Although theoretical models need to be understood, this module is predominantly designed for practical and creative applications, and will allow students to apply synthesis to a variety of contemporary music genres.

Areas of study could include:

- Key Components of Synthesis and Synthesis theory
- Analogue v. Digital interfaces
- Additive Synthesis
- Subtractive Synthesis
- Granular Synthesis
- Physical Modelling Synthesis
- FM Synthesis
- Wavetable Synthesis
- Vector Synthesis
- Spectral Synthesis
- Sample Based Synthesis

### Aims

This module is designed to deliver core concepts and methodologies of sound synthesis and will allow students to explore a range of sonic possibilities. Students will work with both analogue and digital technologies, and will be able to identify, and work with various forms of sound synthesis. Students will be encouraged to develop authenticity through synthesis in their practical work as part of their emerging artistic voice

The module aims to:

1. Enable students to design sounds using sound synthesis.
2. Give students an understanding of sound synthesis methodologies.
3. Allow students to explore a variety of musical genres and their approach to sound synthesis.

### Learning outcomes

- LO1 Work with a variety of sound synthesis methodologies to design original sounds  
 LO2 Apply sound synthesis to specific genres of contemporary music.  
 LO3 Apply practical and theoretical knowledge of sound synthesis in the creation of original work.

### Learning and teaching methods

The sessions in this module will be delivered as tutor led workshops in a computer music suite, and will include technical demonstrations, followed by in class practical exercises. There will be lecture elements to the module, as a way of providing context to the topics covered. The work produced in this module, will be used to develop the students emerging professional profile.

### Contact hours and directed study (over semesters 1 and 2)

Delivery type	Student hours
Indicative hours for learning and teaching activities	15
Indicative hours of directed study	85
Total hours (100hrs per 10 credits)	100

### Opportunities for formative feedback

Regular formative assessment through workshops, in class tasks, and supported by electronic worksheets.

### Assessment Method

Description of assessment	Length/Duration	Weighting	Module LOs addressed
Portfolio (sound design/composition)	4 minutes + 4 minutes vlog	100%	1, 2, 3

### Re-Assessment Method

Description of assessment	Length/Duration	Weighting	Module LOs addressed
Portfolio (sound design/composition)	4 minutes + 4 minutes vlog	100%	1, 2, 3

Where practicable, assessments may be delivered through the conservatoire's VLE or by video to ensure that overseas students are not disadvantaged or incur unnecessary travel costs. Assessments delivered through the VLE will be timed and invigilated.

### Reading List available online