

## Module Template for New and Revised Modules<sup>1</sup>

<b>Module Code</b>	EEMT04
<b>Module Name</b>	SYNTHESIS & SOUND DESIGN
<b>ECTS Weighting<sup>2</sup></b>	5 ECTS
<b>Semester taught</b>	Semester 1
<b>Module Coordinator/s</b>	DR DERMOT FURLONG
<b><u>Module Learning Outcomes</u> with reference to the <u>Graduate Attributes</u> and how they are developed in discipline</b>	<p>On successful completion of this module, students should be able to:</p> <p>To think independently.</p> <p>To communicate effectively.</p>
<b>Module Content</b>	<p>The aim of this module is to provide students with an introduction to digital synthesis techniques. On successful completion of this module, students should be able to address audio synthesis and will be enabled to synthesize musically interesting tones using various audio synthesis algorithms, together with their implementation details in Csound. On successful completion of this module, students will be able to:</p> <ul style="list-style-type: none"><li>• Assess the strengths and limitations of different synthesis algorithms.</li><li>• Implement various synthesis algorithms in Csound.</li></ul>
<b>Teaching and Learning Methods</b>	<p>Synthesis algorithms are presented and discussed in formal lectures. Use is also made of in-class tutorial exercises and homework practical exercises.</p>

---

<sup>1</sup> [An Introduction to Module Design](#) from AISHE provides a great deal of information on designing and re-designing modules.

<sup>2</sup> [TEP Glossary](#)

<b>Assessment Details<sup>3</sup></b> <b>Please include the following:</b> <ul style="list-style-type: none"> <li>• <b>Assessment Component</b></li> <li>• <b>Assessment description</b></li> <li>• <b>Learning Outcome(s) addressed</b></li> <li>• <b>% of total</b></li> <li>• <b>Assessment due date</b></li> </ul>	<b>Assessment Component</b>	<b>Assessment Description</b>	<b>LO Addressed</b>	<b>% of total</b>	<b>Week due</b>			
	Assignments	Assignment 1 & 2 address the theoretical foundations of some synthesis algorithms, and also their practical realization using Csound.	Effective realization of various digital audio synthesis algorithms	40% And 60%	Week 6 Assignment 1  and  Week 12 Assignment 2			
<b>Reassessment Requirements</b>	None							
<b>Contact Hours and Indicative Student Workload<sup>3</sup></b>	<table border="1"> <tr> <td> <b>Contact hours:</b>  22 lecture hours, 2 bootcamp tutorial hours </td> </tr> <tr> <td> <b>Independent Study (preparation for course and review of materials):</b>  25 hours </td> </tr> <tr> <td> <b>Independent Study (preparation for assessment, incl. completion of assessment):</b>  20 hours </td> </tr> </table>					<b>Contact hours:</b> 22 lecture hours, 2 bootcamp tutorial hours	<b>Independent Study (preparation for course and review of materials):</b> 25 hours	<b>Independent Study (preparation for assessment, incl. completion of assessment):</b> 20 hours
<b>Contact hours:</b> 22 lecture hours, 2 bootcamp tutorial hours								
<b>Independent Study (preparation for course and review of materials):</b> 25 hours								
<b>Independent Study (preparation for assessment, incl. completion of assessment):</b> 20 hours								
<b>Recommended Reading List</b>	Jim Aikin: Csound Power Riccardo Bianchini and Allesandro Cipriani: Virtual Sound. Richard Boulanger: The Csound Book. Charles Dodge and Thomas Jerse: Computer Music. Peter Manning: Electronic and Computer Music. Alessandro Cipriani and Maurizio Giri: Electronic Music and Sound Design.							
<b>Module Pre-requisite</b>	None							
<b>Module Co-requisite</b>	None							

<sup>3</sup> [TEP Guidelines on Workload and Assessment](#)

<b>Module Website</b>	None
<b>Are other Schools/Departments involved in the delivery of this module? If yes, please provide details.</b>	No
<b>Module Approval Date</b>	
<b>Approved by</b>	
<b>Academic Start Year</b>	
<b>Academic Year of Date</b>	