

DEREE COLLEGE SYLLABUS FOR: MU 3119 MAKING MUSIC WITH COMPUTERS (previously MU 2119)		3/0/3										
(Updated Spring 2016)		UK LEVEL:5 UK CREDITS:15										
PREREQUISITES:	CS 1070 INTRODUCTION TO INFORMATION SYSTEMS											
CATALOG DESCRIPTION:	Students will make use of computer technology to create and manipulate musical material, ranging from MIDI through to digital audio. The course is based on extensive practical work allowing students to develop key technological and creative skills and understanding.											
RATIONALE:	Computer technology has a wide range of applications in the creation and manipulation of musical material and in some areas is a central tool of musical creativity. This course enables students to explore the field and establish and develop key skills while placing these within the context of creative musical activity.											
LEARNING OUTCOMES:	After successfully completing this course, students should be able to: <ol style="list-style-type: none"> 1. demonstrate the practical ability to effectively employ MIDI and audio technology to create simple musical ideas. 2. modify and improve audio material using computer-based technology. 3. evaluate a range of relationships between technology and music, deducting the key issues involved in each case and explaining the musical problems inherent in each case. 4. build a short musical project realised using computer technology, organizing the creative process in a manner that compares the relationship between technology, musical language and musical creativity as found in the project. 											
METHOD OF TEACHING AND LEARNING:	In congruence with the teaching and learning strategy of the college, the following tools are used: <ul style="list-style-type: none"> • Class lectures (including class discussions and group work) and practical sessions in a computer lab. • Office hours: students are encouraged to make full use of their instructor's office hours, where they can ask questions, see their assigned work results and/or go over lecture material • Use of a learning management system (Blackboard) where instructors post lecture notes, assignment instructions, announcements and additional resources • Support from the Student Academic Support Services (SASS), who offer one-to-one and group workshop sessions to support the development of academic and study skills 											
ASSESSMENT:	<table border="1" style="width: 100%;"> <tr> <td colspan="2">Summative:</td> </tr> <tr> <td>Midterm Project</td> <td style="text-align: center;">30%</td> </tr> <tr> <td>Final Project</td> <td style="text-align: center;">70%</td> </tr> <tr> <td colspan="2">Formative:</td> </tr> <tr> <td>Project Exercises</td> <td style="text-align: center;">0</td> </tr> </table> <p>The formative assessments prepare students for the midterm and final projects through exercises testing learning outcomes 1, 2, 3 & 4. The Midterm Project tests learning outcomes 1, 2 & 3. The Final Project tests learning outcomes 1, 2, 3 & 4.</p>		Summative:		Midterm Project	30%	Final Project	70%	Formative:		Project Exercises	0
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INDICATIVE READING:	REQUIRED READING: Hosken, Daniel W. <i>An Introduction to Music Technology</i> . New York: Routledge. 2011.											

	<p>RECOMMENDED READING:</p> <p>Manuals for the software being used, which are freely available online in Adobe Acrobat (PDF) format from the software company's web sites.</p>
<p>INDICATIVE MATERIAL: (e.g. audiovisual, digital material, etc.)</p>	<p>REQUIRED MATERIAL: N/A</p> <p>RECOMMENDED MATERIAL:</p> <p>There is a huge range of tutorial material available for the software packages being used in the course, both on the software companies' web sites as well as sites such as YouTube and FLOSS Manuals. Students will be directed to a selection of these depending on their needs.</p>
<p>COMMUNICATION REQUIREMENTS:</p>	<p>Blackboard and an active ACG email account. High standards of written English (for all assignments) and verbal English (for participation in class discussions, presentations and practical work).</p>
<p>SOFTWARE REQUIREMENTS:</p>	<p>Microsoft Word (or similar word processing program) and an internet connection.</p> <p>The course will also make extensive use of specialist software for MIDI and sound capture, manipulation and presentation. This will be provided in a computer lab. As far as is possible, this software will be freeware or open source.</p> <p>Software needs are as follows:</p> <ul style="list-style-type: none"> • <i>Reaper</i> by Cookos (www.reaper.fm), shareware software with very low licence fee and unlimited free evaluation period. • <i>Soundmagic Spectral Tools</i> by Michael Norris (www.michaelnorris.info), freeware. • <i>MuseScore</i> (www.musescore.org), open source.
<p>WWW RESOURCES:</p>	<p>There are extensive online resources for music technology. The typical starting points for this course will be:</p> <ul style="list-style-type: none"> • The web pages of the software companies involved, almost all of whom have online tutorials, information resources and background articles. • Selected tutorial articles from online magazines concerned with the field, starting with <i>Sound On Sound</i> (www.sospubs.com).
<p>INDICATIVE CONTENT:</p>	<p>Introduction</p> <ul style="list-style-type: none"> • Computer technology in the representation of musical sound • Practicalities of the creation and control of sound on computers • Brief survey of music involving computer technology <p>MIDI</p> <ul style="list-style-type: none"> • Basic theory of MIDI representation of musical data • Basics of note-based editing, manipulation and transformation using standard 'sequencing' software • Real and virtual instruments • Musical score creation and manipulation • Introduction to sound synthesis • Introduction to sampling <p>Digital Audio</p> <ul style="list-style-type: none"> • Basic theory of digital audio sampling • Practicalities of digital audio on computers • Editing, manipulating and transformation of digital audio <p>Creativity and Technology</p> <ul style="list-style-type: none"> • Practical and creative issues in the mapping of technical parameters to musical parameters

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| | <ul style="list-style-type: none">• Composition using technology – the shaping of ideas into coherent musical structures• Examination of case studies concerning the use of technology in the creation and manipulation of music |
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