

Cambridge TECHNICALS LEVEL 3

PERFORMING ARTS

Cambridge
TECHNICALS
2016

Unit 30 – Produce music using technology

DELIVERY GUIDE

Version 1

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INTRODUCTION

This Delivery Guide has been developed to provide practitioners with a variety of creative and practical ideas to support the delivery of this qualification. The Guide is a collection of lesson ideas with associated activities, which you may find helpful as you plan your lessons.

OCR has collaborated with current practitioners to ensure that the ideas put forward in this Delivery Guide are practical, realistic and dynamic. The Guide is structured by learning outcome so you can see how each activity helps you cover the requirements of this unit.

We appreciate that practitioners are knowledgeable in relation to what works for them and their learners. Therefore, the resources we have produced should not restrict or impact on practitioners' creativity to deliver excellent learning opportunities.

Whether you are an experienced practitioner or new to the sector, we hope you find something in this guide which will help you to deliver excellent learning opportunities.

If you have any feedback on this Delivery Guide or suggestions for other resources you would like OCR to develop, please email resources.feedback@ocr.org.uk.

OPPORTUNITIES FOR ENGLISH AND MATHS SKILLS DEVELOPMENT AND WORK EXPERIENCE

We believe that being able to make good progress in English and maths is essential to learners in both of these contexts and on a range of learning programmes. To help you enable your learners to progress in these subjects, we have signposted opportunities for English and maths skills practice within this resource. We have also identified any potential work experience opportunities within the activities. These suggestions are for guidance only. They are not designed to replace your own subject knowledge and expertise in deciding what is most appropriate for your learners.



English



Maths



Work

Please note

The activities suggested in this Delivery Guide **MUST NOT** be used for assessment purposes. The timings for the suggested activities in this Delivery Guide **DO NOT** relate to the Guided Learning Hours (GLHs) for each unit.

Assessment guidance can be found within the Unit document available from www.ocr.org.uk. The latest version of this Delivery Guide can be downloaded from the OCR website.

UNIT AIM

The world of music production is increasingly linked to innovations within technology. To be successful within this field of work, you need to understand the technology and tools that are available to music makers.

By completing this unit you will be equipped with the theoretical and practical working knowledge required when producing an audio/MIDI recording utilising a variety of studio-based equipment. You will familiarise yourself with the main components of current music production techniques and gain a comprehensive understanding of how they are used to create music.

Unit 30 Produce music using technology

LO1	Understand the function of technology used in music production
LO2	Be able to plan for the production of music products
LO3	Be able to produce a music product

To find out more about this qualification, go to: <http://www.ocr.org.uk/qualifications/cambridge-technicals-performing-arts-level-3-certificate-extended-certificate-foundation-diploma-diploma-05850-05853-2016-suite>

Cambridge
TECHNICALS
2016

2016 Suite

- New suite for first teaching September 2016
- Externally assessed content
- Eligible for Key Stage 5 performance points from 2018
- Designed to meet the DfE technical guidance

RELATED ACTIVITIES

The Suggested Activities in this Delivery Guide listed below have also been related to other Cambridge Technicals in Performing Arts units/Learning Outcomes (LOs). This could help with delivery planning and enable learners to cover multiple parts of units.

This unit (Unit 30)	Title of suggested activity	Other units/LOs	
LO1	Audio technology	Unit 30 Produce music using technology	LO2 Be able to plan for the production of music products LO3 Be able to produce a music product
	MIDI technology	Unit 30 Produce music using technology	LO3 Be able to produce a music product
	Plug-ins	Unit 30 Produce music using technology	LO3 Be able to produce a music product
	Editing audio files	Unit 30 Produce music using technology	LO3 Be able to produce a music product
	Editing MIDI data	Unit 30 Produce music using technology	LO3 Be able to produce a music product
	Creative uses of technology	Unit 30 Produce music using technology	LO2 Be able to plan for the production of music products LO3 Be able to produce a music product
LO2	What is a music product?	Unit 30 Produce music using technology	LO3 Be able to produce a music product
	Working to a commission	Unit 30 Produce music using technology	LO3 Be able to produce a music product
	The importance of planning	Unit 30 Produce music using technology	LO3 Be able to produce a music product
	Preparing for a session	Unit 30 Produce music using technology	LO3 Be able to produce a music product
	Selecting resources	Unit 30 Produce music using technology	LO3 Be able to produce a music product
	Audience/consumer needs	Unit 30 Produce music using technology	LO3 Be able to produce a music product
LO3	Propose your product	Unit 30 Produce music using technology	LO2 Be able to plan for the production of music products
	Capturing the performance	Unit 30 Produce music using technology	LO2 Be able to plan for the production of music products
	Working with performers	Unit 30 Produce music using technology	LO2 Be able to plan for the production of music products
	Refining the mix	Unit 30 Produce music using technology	LO2 Be able to plan for the production of music products
	Delivery methods	Unit 30 Produce music using technology	LO2 Be able to plan for the production of music products
	Presenting the product	Unit 30 Produce music using technology	LO2 Be able to plan for the production of music products

KEY TERMS

Explanations of the key terms used within this unit, in the context of this unit

Key term	Explanation
Audio technology	Hardware and software devices used for the capture and playback of a live music performance using real instrumentation.
MIDI technology	Hardware and software devices which use the Musical Instrument Digital Interface (MIDI) protocol to perform and sequence music using synthesised or sampled sounds.
Music product	A consumer-focused product where music can be purchased and played via an industry standard medium such as compact disc (CD) or online streaming.
Produce	To act in the role of the producer. This is the link between the artist and the record company who acts in an advisory role on artistic matters, ensures that the product is both technically and sonically acceptable and is responsible for delivering the work on time and within budget.
Audience/consumer needs	The idea of tailoring a product to a targeted demographic as opposed to pure artistic expression. This can take into account factors such as age, gender and income.

MISCONCEPTIONS

Some common misconceptions and guidance on how they could be overcome

What is the misconception?	How can this be overcome?	Resources which could help
<p>Popular musicians do not have to be able to read music</p>	<p>Learners may feel intimidated by using traditional musical notation, or may have come from a self-taught background.</p> <p>Tutors could stress the importance of being able to understand and use notation in regards to helping the learner to develop their musical vocabulary and understanding of music and also in relation to developing employability skills.</p> <p>The greater the traditional music skills of a technologist, the more fluid their communication will be with performers. This also assists greatly in using score-writing features in software and improves general all-round employability.</p>	<p>Organisation: Udemy Resource Title: Myth 5. Reading music won't help Website Link: https://blog.udemy.com/how-to-write-music/ Description: A reinforcement of the necessity to be able to understand and use musical notation.</p>
<p>The meaning of pre-production planning</p>	<p>Learners may have previously worked in isolation on small scale projects which may not have used other musicians. They may not understand the importance of planning in relation to availability of both human and technological resources and the impact that this can have on the timescale and delivery of a project.</p> <p>Tutors could assist learners with devising and adhering to a structured production routine, including equipment and technical requirements.</p>	<p>Organisation: The Guardian Resource Title: What does it take to be a music producer? Website Link: https://www.theguardian.com/careers/music-producer-career-advice Description: Article discussing the skills and qualities necessary to succeed as a music producer.</p>
<p>The importance of developing music technology skills</p>	<p>Learners may have experience of using a limited range of studio-based equipment, but their skills may be self-taught or learned from online resources, which may be factually incorrect.</p> <p>Learners may be unfamiliar with the technical understanding and science-based knowledge required to use audio equipment at a professional level.</p> <p>Tutors could assist learners to develop their understanding of the importance of these environments, their confidence in performing in these conditions and relate this to interviews for Higher Education courses or auditions to join a band.</p>	<p>Organisation: BBC Bitesize Resource Title: Music Technology skills Class Clips Website Link: http://www.bbc.co.uk/education/topics/z9qhgk7/resources/1 Description: BBC article containing video clips of music technology in education.</p>

Some common misconceptions and guidance on how they could be overcome		
What is the misconception?	How can this be overcome?	Resources which could help
The importance of developing aural skills	<p>Learners may have experience of using their aural skills to learn parts from audio recordings but they may not have considered the techniques and terminology that are associated with this process. Being able to analyse existing productions is essential in becoming a professional music technologist.</p> <p>Tutors could encourage learners to use the knowledge gained in this unit to be able to describe and explain the techniques that are used when developing aural skills and relate this to accepted musical terminology.</p>	<p>Organisation: Thackray, R. Resource Title: Some Thoughts on Aural Training Website Link: http://search.informit.com.au/documentSummary;dn=348549341969910;res=IELHSS Description: Scholarly article discussing aural training, including misconceptions.</p>
Music as a commodity	<p>Learners may find it difficult to understand what makes music commercially successful in terms of both songwriting and the effect that the production techniques have on the sonic qualities of recordings.</p> <p>Tutors could encourage learners to understand the importance of understanding how production techniques vary from genre to genre and the impact that the target market may have on the nature of the production.</p>	<p>Organisation: Straw, W., Berkley College of Music Resource Title: Music as Commodity and Material Culture Website Link: https://www.ocf.berkeley.edu/~repercus/wp-content/uploads/2011/07/repercussions-Vol.-7-8-Straw-Will-Music-as-Commodity-and-Material-Culture.pdf Description: Scholarly article discussing music as a commodity.</p>

SUGGESTED ACTIVITIES

LO No:	1		
LO Title:	Understand the function of technology used in music production		
Title of suggested activity	Suggested activities	Suggested timings	Also related to
Audio technology	<p>Learners could use the following article as a basis of a small group discussion on how digital audio recording technology has changed the typical studio environment in the last decade:</p> <p>Organisation: Homer, M., Nobleworld Resource Title: Beyond the Studio: The Impact of Home Recording Technologies on Music Creation and Consumption Website Link: http://www.nobleworld.biz/images/Homer.pdf Description: A scholarly overview of the increasing affordability of digital audio systems.</p>	1.5 hours	Unit 30 LO2, LO3
MIDI technology	<p>Tutors could ask learners to work in small groups and give a short presentation on the development and uses of MIDI.</p> <p>A useful article: Organisation: MusicRadar Resource Title: 30 Years of MIDI: a brief history Website Link: http://www.musicradar.com/news/tech/30-years-of-midi-a-brief-history-568009 Description: An article on the history and development of MIDI.</p> <p>A relevant textbook for this subject: Huber, D.M. (2007) <i>The MIDI Manual: A Practical Guide to MIDI in the Project Studio</i>. Focal Press. ISBN: 978-0-240-80798-0</p>	1 hour	Unit 30 LO3
Plug-ins	<p>The proliferation of dynamic processors and effects such as virtual plug-in software has revolutionised the music production industry in the 21st century.</p> <p>Learners could be given a series of prescribed tasks using both MIDI and audio plug-ins to demonstrate a basic understanding of the use of these devices. This could include such activities as adding reverb to a given vocal track, or programming a beat using a software drum machine.</p> <p>Useful article: Organisation: MusicRadar Resource Title: VST Plugins – Virtual Studio technology Website Link: http://www.musicradar.com/hub/vst-plugins Description: Article on the development of the VST standard and links to specific examples.</p>	1.5 hours	Unit 30 LO3

Title of suggested activity	Suggested activities	Suggested timings	Also related to
Editing audio files	<p>Tutors could ask learners to provide a 'how to' basic video blog demonstrating fundamental audio editing techniques aimed at new users of music technology software.</p> <p>A useful internet resource for exploring these techniques: Organisation: MusicTech Magazine Resource Title: 20 Audio Editing Techniques Website Link: http://www.musictech.net/2014/12/20-audio-editing-tips/ Description: Online lesson investigating fundamental audio editing techniques.</p> <p>A useful textbook: Delaney, M. (2004) <i>Laptop Music</i>. PC Publishing. ISBN: 978-1870775899</p>	1.5 hours	Unit 30 LO3
Editing MIDI data	<p>Tutors could give learners a pre-sequenced piece that contains errors in timing, volume, instrumentation, etc and ask them to correct the piece using MIDI editing techniques.</p> <p>A useful article for learners to study: Organisation: MusicRadar Resource Title: 19 sequencing and MIDI power tips Website Link: http://www.musicradar.com/tuition/tech/19-sequencing-and-midi-power-tips-191594 Description: An article on techniques for editing and shaping MIDI data.</p> <p>A relevant textbook for this subject: Huber, D.M. (2007) <i>The MIDI Manual: A Practical Guide to MIDI in the Project Studio</i>. Focal Press. ISBN: 978-0-240-80798-0</p>	1.5 hours	Unit 30 LO3
Creative uses of technology	<p>Learners could undertake a case study looking at 2 or 3 creative production techniques of interest to them. They could present their findings to the group, detailing the techniques and how they might implement something similar in their work.</p> <p>Useful article: Organisation: MusicRadar Resource Title: 50 production secrets from the pros Website Link: http://www.musicradar.com/news/tech/50-production-secrets-from-the-pros-625534 Description: Online article looking at industry practice.</p> <p>A useful textbook: Toynbee, J. (2000) <i>Making Popular Music: Musicians, Creativity and Institutions</i>. Bloomsbury Academic. ISBN: 978-0340652237</p>	1 hour	Unit 30 LO2, LO3

SUGGESTED ACTIVITIES

LO No:	2		
LO Title:	Be able to plan for the production of music products		
Title of suggested activity	Suggested activities	Suggested timings	Also related to
What is a music product?	<p>Tutors could ask learners to describe and analyse what constitutes a viable music product.</p> <p>Learners could analyse and describe the current commercial market and discuss the profitability of commercial and niche music and other outlets such as film music or video game soundtracks.</p> <p>The examples given by the tutor could start with simple mainstream music and progress to more niche or difficult tracks as learners develop their skills.</p> <p>Useful resource: Organisation: Music Industry Blog Resource Title: What Other Technology Sector Thinks That It Has Arrived At Its Destination? Website Link: https://musicindustryblog.wordpress.com/tag/music-product-strategy/ Description: An article on current market practice.</p>	1.5 hours	Unit 30 LO3
Working to a commission	<p>It is important for learners to understand the considerations that need to be taken in account when producing music for a commissioned brief. Learners will need to understand that in this situation, their personal preferences will have to be mitigated in order to meet the needs of the client.</p> <p>Learners could be presented with a mock situation where they are asked to discuss the positive and negative aspects of working to a commercial brief, e.g. music for a children's television programme, and asked to feed back their thoughts to the group on the challenges that such a scenario would bring forth.</p>	1 hour	Unit 30 LO3
The importance of planning	<p>It is important for learners to develop an awareness of the necessity to devise and plan a structured pre-production regime in order to prepare as effectively as possible for their production assessment.</p> <p>Tutors could assist learners to devise a routine and set SMART targets so that learners can reflect upon progress made and make adjustments accordingly. A logbook or journal pro-forma may prove useful for this.</p> <p>Useful resource: Organisation: Platinumloops Resource Title: How A Good Engineer Should Prepare For A Recording Session Website Link: https://www.platinumloops.com/how-a-good-engineer-should-prepare-for-a-recording-session/ Description: An article on how to plan effectively.</p>	1 hour	Unit 30 LO3

Title of suggested activity	Suggested activities	Suggested timings	Also related to
Preparing for a session	<p>It is important for learners to develop an awareness of the preparation required for a production project. This could include preparation and care of their instrument and peripherals, organising time and resources and also mental preparations.</p> <p>Tutors could direct learners to this internet resource which outlines how professional technologists may prepare for a production project:</p> <p>Organisation: Audio Issues Resource Title: 21 Recording Studio Tips for a Smoother Session Website Link: http://www.audio-issues.com/recording-tips/21-recording-studio-tips-for-a-smoother-session/ Description: An article on how producers can effectively prepare for a studio session.</p> <p>A useful book which considers the physical and mental preparation that artists require is: Green, B. Gallwey, T.W. (2015) <i>The Inner Game of Music</i>. Pan Books. ISBN: 978-1-4472-9172-5</p>	1 hour	Unit 30 LO3
Selecting resources	<p>Learners could take part in a minuted meeting, or round-table discussion between performers and producer(s), outlining the technological and human resources that will be required for a forthcoming production project.</p> <p>It may be useful to capture the activity as an audio or video recording in order to provide evidence for the following activity.</p>	2 hours	Unit 30 LO3
Audience/consumer needs	<p>Learners need to consider their target demographic for their production project and the needs and wants of the audience</p> <p>Learners could give a short presentation of the profile and needs of their target audience.</p> <p>Useful resource: Organisation: National Arts Marketing Project Resource Title: Finding Your Audience Through Market Segmentation Website Link: http://www.artsmarketing.org/sites/default/files/documents/practical-lessons/lesson_3.pdf Description: An article identifying research methods to use in target audience selection.</p>	1 hour	Unit 30 LO3

SUGGESTED ACTIVITIES

LO No:	3		
LO Title:	Be able to produce a music product		
Title of suggested activity	Suggested activities	Suggested timings	Also related to
Propose your product	<p>Learners need to have a clearly-defined product before embarking on the production project in order to ensure that they can use their time and required resources as effectively as possible</p> <p>Learners could prepare a short presentation or planning proposal document outlining and justifying their product and relating this to their target market and the resources that will be required.</p> <p>The following textbook contains detailed information on why it is essential to have a clear idea of what the production project will be before undertaking the practical process:</p> <p>Frith, S. and Zagorski-Thomas, S. (2012) <i>The Art of Record Production: An Introductory Reader for a New Academic Field</i>. Routledge. ISBN: 978-1-4094-0678-5</p>	1 hour	Unit 30 LO2
Capturing the performance	<p>It is essential that technologists have a good working knowledge of how to select and use resources to capture the musical performance through informed artistic and technological choices.</p> <p>Learners could experiment with a variety of microphones and mic placements in order to expand their understanding of how the sonic qualities of a production can be affected by the approach to capturing that performance.</p> <p>The following textbook provides a detailed insight into production and microphone selection and technique:</p> <p>Rumsey, F. and McCormick, T. (2009) <i>Sound and Recording</i>. Focal Press. ISBN: 978-0240521633</p>	1 hour	Unit 30 LO2
Working with performers	<p>Learners need to understand the psychology and people skills required to work with performers in a studio environment.</p> <p>Learners, working in small groups, could be given a series of scenarios or potential issues that may arise during a studio session and asked to discuss how they would resolve these with performers.</p> <p>Useful resource: Toynbee, J. (2000) <i>Making Popular Music: Musicians, Creativity and Institutions</i>. Bloomsbury Academic. ISBN: 978-0340652237</p>	1.5 hours	Unit 30 LO2

Title of suggested activity	Suggested activities	Suggested timings	Also related to
Refining the mix	<p>Refining the raw mix into a commercially acceptable product is an essential skill. Before learners undertake this activity with their own project, they could work with given items to practice their mixing technique and use of dynamics and effects processing.</p> <p>Useful resource: Organisation: MusicTech Magazine Resource Title: Twenty Mixing Tips Website Link: http://www.musictech.net/2015/02/twenty-mixing-tips/ Description: Essential skills for creating an instant mix and how-to guide for tips on mixing.</p>	1.5 hours	Unit 30 LO2
Delivery methods	<p>Learners could discuss and evaluate the advantages and disadvantages of the multitude of contemporary vehicles for delivering recorded music. They could be asked to weigh up the need for physical media such as CD versus digital downloads or streaming services such as Spotify. This could be informed by their previous research into their target market.</p>	1.5 hours	Unit 30 LO2
Presenting the product	<p>Learners could be asked to give a final presentation evaluating their finished music product and discussing how the planning and production stages informed the finished article.</p> <p>Learners could play or distribute the finished mixes via an appropriate medium and discuss why they have chosen to use this particular delivery method(s).</p>	2 hours	Unit 30 LO2



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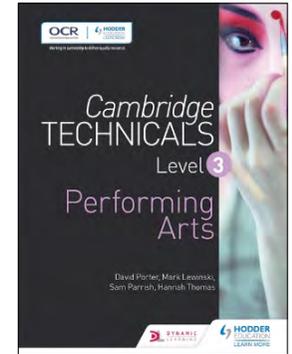
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Cambridge Technicals Level 3

Performing Arts textbook

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