

# Haydon School

## Music Technology

### Transition Materials for A Level



This pack contains a programme of activities and resources to prepare you to start an A Level in Music Technology in September. Please ensure you complete all tasks over the summer, and access the suggested listening

## **Entry requirements:**

Experience of Music Technology software (preferably Logic) is required, along with basic keyboard skills, experience in composition and some understanding of music theory.

## **Course overview:**

### **Edexcel Music Technology A Level: What you need to know**

**All units are externally assessed.**

#### **Areas of study**

- Recording and production techniques for both corrective and creative purposes
- Principles of sound and audio technology
- The development of recording and production technology

#### **Assessment**

##### **Component 1 20%: Recording**

- One recording chosen from a list of ten songs, including five compulsory and two additional instruments

##### **Component 2 20%: Technology based composition**

- One technology based composition chosen from three briefs

##### **Component 3 25%: Listening and analysing**

- 1hr 30min written exam

##### **Component 4 35%: Producing and analysing**

- 2hr 15min written/practical exam

# Contents

1. The development of recording & production technology
2. Listening & Analysing
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4. Synthesis
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# 1. The development of recording & production technology

Complete the course on OpenLearn on Recording Music and Sound:

<https://www.open.edu/openlearn/history-the-arts/recording-music-and-sound/content-section-0?intro=1>

Create a timeline of the development of recording from 1877 to present day. Ensure you include all relevant technology e.g. magnetic tape, shellac disc, microphones, CD etc.

## 2. Listening & Analysing

For each style, choose a song by one of the listed artists.

Create a grid with two headings: Musical / Music Technology. As you listen to the song write down everything you hear (in order) and try to describe it as best as you can. For example: Musical: drum kit, kick playing on every beat; Technology: Distortion effect on electric guitar.

Style	Artists
Jazz	Joe "King" Oliver, Louis Armstrong, Duke Ellington, Glen Miller, Fats Waller, Ella Fitzgerald, Miles Davis, Bill Evans, Ornette Coleman, John Coltrane, Tito Puente
Blues	Robert Johnson, Bessie Smith, Howlin' Wolf, BB King,
Rhythm and Blues	Ray Charles, Ben E King, Sam Cooke
Country	Jimmie Rodgers, Hank Williams, Johnny Cash, Dolly Parton, Shania Twain
Rock and Roll	Bill Haley and his Comets, Little Richard, Chuck Berry, Elvis, Jerry Lee Lewis
Soul	Stevie Wonder, Diana Ross/The Supremes, Marvin Gaye, Al Green, The Jackson 5, The Four Tops, Booker T and the MG's, Dusty Springfield
Rock and Pop in the 60's	The Beatles, The Animals, The Rolling Stones, The Who, Bob Dylan, Frank Zappa, The Beach Boys
Prog and Hard Rock	Pink Floyd, Genesis, Led Zeppelin, Deep Purple, Black Sabbath, Jimi Hendrix, Iron Maiden
Glam Rock	T.Rex, Slade, David Bowie, Wizzard, Bryan Ferry
Ska, Rocksteady and Reggae	The Skatalites, Bob Marley, Jimmy Cliff, Dennis Brown, Burning Spear, The Specials, Madness, UB40
Funk and Disco	James Brown, Isaac Hayes, Sly and the family Stone, Chic, Donna Summer, Sister Sledge, The Bee Gees
Punk and New Wave	Sex Pistols, The Clash, The Stranglers, The Jam, The Buzzcocks, The Ramones, Elvis Costello, Squeeze, The Police, Blondie, Talking Heads
Synth Pop	Ultravox, The Human League, Kraftwerk, Gary Numan, Eurythmics, Duran Duran, Pet Shop Boys
Hip Hop	Afrika Bambaataa, Grandmaster Flash, The Beastie Boys, LL Cool J, KRS-One, Run D.M.C, Eminem
Indie Rock	The Smiths, Happy Mondays, Suede, Blur, Stone Roses
Electronic dance	MARRS, Fatboy Slim, The Chemical Brothers, The Prodigy, Moby, Roni Size, Skrillex, Dizzee Rascal

# 3. Independent research - Microphones

One of the first things you will learn in Music Technology is audio recording. It would be especially useful that before we begin this, you understand about the different types of microphones and specifications.

Produce a report using the headings below. You should use the exact same headings in your report. The text below each heading indicates the content you need to include. Pictures are always good!

## **Microphones**

What is a microphone... what does it do?

## **Condenser Microphones**

How they work

Properties – what are they good for?

## **Dynamic Microphones**

How they work

Properties – what are they good for?

## **Ribbon Microphones**

How they work

Properties – what are they good for?

## **Polar Patterns**

What is a polar pattern?

What is 'cardioid' and what is it good for recording?

What is 'omnidirectional' and what is it good for recording?

What is 'figure of 8' and what is it good for recording?

## **Stereo Recording Techniques**

What is Stereo?

What is a 'Spaced Pair', which type of microphones might you use and what is it good for recording?

What is a 'Coincident Pair', which type of microphones might you use and what is it good for recording?

What is a 'Near-Coincident Pair', which type of microphones might you use and what is it good for recording?

What is 'Mid-side technique', which type of microphones might you use and what is it good for recording?

What is the 'Blumlein technique', which type of microphones might you use and what is it good for recording?

You may submit either a printed copy of your work or an electronic text document.

## 4. Synthesis

Go to <https://learningsynths.ableton.com/> and work through the tutorials on synthesis. Write notes as you go to feedback in the first week of lessons on your understanding on the basics of synthesis and the core parameters:

- Wave shape
- Coarse & Fine tuning
- Modulation
- LFO
- Filter cut-off
- Filter Resonance

## 5. Case Study – The Recording Studio

The studio is where the magic happens! There is nothing more inspiring than having a control room full of vintage and modern equipment for your creative projects. As Music Technology students, you need to know your way around a studio from a basic home set up to the multimillion-pound commercial studios. Use these links to help understand studios before you start work in ours.

<https://www.rollingstone.com/music/music-news/home-studio-setup-recording-how-to-790937>

<https://www.musictech.net/tutorials/point-blank-home-studio/>

[https://www.youtube.com/watch?v=pcYdIT63r0I&feature=emb\\_rel\\_pause](https://www.youtube.com/watch?v=pcYdIT63r0I&feature=emb_rel_pause)

## 6. Logic Pro X – Advanced Features

A solid understanding of Logic Pro X for creative purposes is key to success across the units. Go through the Music Tech Logic Pro X video tutorial series and watch the videos on any techniques you are not familiar with yet. If you have a Mac, you can download a free 90-day trial of Logic Pro X and try some of these techniques out.

[https://www.youtube.com/playlist?list=PL2\\_zHe1np2HdE5t3Ack3XS7PC8RKx8juW](https://www.youtube.com/playlist?list=PL2_zHe1np2HdE5t3Ack3XS7PC8RKx8juW)

# 7. Independent Research - Glossary

There will be a lot of new terminology to tackle. Complete the Glossary below to give you a head start with your understanding.

## Glossary

Additive synthesis	
ADSR	
Balance	
Bouncing down	
Compression	
Condenser microphone	
Delay	
DI	
Dynamic microphone	
EQ	
Feedback	
Gain	
Gating	
Harmonics	
High Pass filter	
Limiter	
Lo-Fi	
Midi	
Mono	
Normalizing	
Overdub	
Panning	
Plugin	
Quantize	
Reverb	
Sampler	
Sequencer	
Side-Chain	
Slap Back Echo	
Stereo	

XLR	
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