



Music Technology BTEC -Pre-Course study

The aim of this study pack is to provide an introduction to the Music Technology BTEC course. From September, this will consist of a practical unit based on sound reinforcement equipment and techniques used for live sound.

Unit 1 – Live Sound.

The role of a live sound engineer can include working with artists across all genres of music in venues ranging from outdoor festivals to stadiums or pubs. A good live sound engineer is often the person responsible for providing a successful and enjoyable performance for musicians and audience alike. A live sound engineer must have a detailed knowledge of equipment and health and safety issues. However, they can often be the one to enhance an artist's performance, as well as communicating successfully with a range of people, often in high pressure situations.

In this unit, you will learn about the component parts of public address (PA) systems and gain practical experience of using them to mix live sound. You will gain knowledge of the working methods and procedures employed by a live sound engineer, including choosing appropriate equipment, the practical set-up of live sound systems and the other roles involved in live music production.

The skills you develop in this unit will allow you to undertake work as a live sound engineer, which may be a front of house (FOH) engineer or a monitor engineer. The skills developed in mixing live sound can also give you greater insight in terms of undertaking other live sound roles, such as road manager, roadie and backline technician, as well as studio-based production work. This will allow you to progress to freelance work in the industry or to undertake higher education courses related to live sound engineering.

To prepare you for this unit please watch the following youtube videos:

Setting up a simple PA for a band. <https://www.youtube.com/watch?v=Shtwr8-P0zs>

Active and Passive speakers, <https://www.youtube.com/watch?v=0QX6q0igUwM>

Mixing desks: <https://www.youtube.com/watch?v=EZr6M6jE3Iw>

Microphones for Live Sound. <https://www.youtube.com/watch?v=27dLLnisH2M>

Microphone Polar patterns: <https://www.youtube.com/watch?v=PE6Qn4ZiEyo>

YOUR TASK:

Now you have begun to understand the need for public address systems, please summarise (in your own words) what you have learned. Do this on Word or PowerPoint and include appropriate google images or diagrams (remember to copy and paste into your document the URL for every image you use). Use the following headings:

1. What are public address systems and why are they used?
2. Explain the components of a typical public address system e.g. a small gig.
 - a. Speakers
 - i. Active and Passive
 - ii. Two way
 - iii. Bi-Amped
 - iv. Crossovers
 - b. Mixers.
 - i. Digital and Analogue
 - c. Microphones
 - i. Dynamic and condenser
 - ii. Polar Patterns
3. What types of events require public address systems and how do the equipment requirements differ between them? e.g. How would the PA equipment for a Theatre differ from a Music Festival and from a pub gig? Give examples of small, medium and large events.