School of Music and the Arts Pte Ltd
6 Raffles Boulevard, Marina Square, #03-142, Singapore 039594
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COURSE SYNOPSIS

Diploma in Music Production and Engineering (DMPE)

Module 1 – Fundamentals of Music Theory (5 credits)

Students will be taught a strong foundation of music theory and harmonic concepts derived from classical and contemporary teachings. Some of the topics covered include scale and mode construction, rhythms and time signatures, key signatures, intervals, chord construction, and the principles of harmonic progressions.

Module 2 – Introduction to Music Technology (5 credits)

This module will cover an overview of current technology in relation to music. It provides students with a fundamental understanding of the principles and theories of sound and audio engineering, as well as Pro Tools, the industry standard digital audio workstation for recording and digital audio production. Through a series of lecture sessions and in-class demonstration, our students will be taught course topics such as frequency response, bit depth and sample rate, understanding different audio file formats and basic signal flow.

Module 3 – Audio Ear Training (5 credits)

Through audio ear training drills, students will be trained to recognise and identify all the 10 octave bands in the frequency spectrum, which will subsequently develop critical listening skills for them to be successful in recording and mixing sessions.

Module 4 – MIDI Systems for Music Production (5 credits)

This module explores the industry standard Musical Instrument Digital Interface (MIDI) specification and its application in music production. Through in-class demonstration and hands-on exercises done at individual computer-based workstations, students will learn how to set up and troubleshoot a MIDI workstation and use sequencing as well as loops to create a music arrangement.

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Module 5 – Recording Techniques (20 credits)

This module focuses on multitrack recording in the studio. Students will be taught in-depth recording principles including an understanding of the console and studio signal flow, different types of microphones and their polar patterns, miking techniques and placement, good recording practices, and finally the ability to make technical decisions in various recording situations. Through various in-class recording sessions as well as out-of-class recording projects, students will be tasked to set up and engineer recording sessions efficiently, both with and without guidance from an instructor.

Module 6 – Mixing Techniques (20 credits)

This module covers essential techniques and concepts during mixdown in a digital audio workstation environment. Students will be taught both the technical concepts and the practical usages of digital signal processing (plug-ins) such as EQ, compression, gating, reverb and delay. Through mixing assignments and a final project, students will learn how to build up a solid mix for different musical styles.

Module 7 – Principles of Acoustics and Studio Maintenance (6 credits)

This module offers a study of the physics of sound and how it affects our listening environments, particularly in recording studios and performance venues. Students will be taught how sound propagates and interacts with different materials and densities, vibration isolation, room acoustics and the various considerations involved in designing a studio. They will also be introduced to concepts such as voltage, alternating and direct current, resistance and impedance, capacitance and electromagnetism, and taught basic studio maintenance techniques, such as how to care for and repair important studio gear, solder cables and maintain microphones.

Module 8 – Advanced Pro Tools (10 credits)

This module builds on the Introduction to Music Technology module to provide students with a more advanced understanding of the Pro Tools software, with an emphasis on MIDI sequencing and synchronization with video. Through in-class demonstration and hands-on exercises in the studio, students will be taught advanced recording techniques, proper synchronisation techniques and timing, sequencing in Pro Tools, a wider array of shortcuts and learn how to troubleshoot within Pro Tools.

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Module 9 – Music Production Techniques (10 credits)

This module deals with the creative and technical aspects of music production, equipping students with the skills to get the most out of musicians, artistes and recording sessions. Through the use of reference songs, students will understand the different stages of production, production values and how to achieve certain sounds in the studio. This module also explores the relationship between producer and engineer, and how to attain a balanced and successful partnership in the studio.

Module 10 – Live Sound Techniques (7 credits)

This module introduces students to the principles of live sound. Students will be taught how to set up, manage, run and tear-down for a live concert situation. Topics include systems integration of live sound reinforcement, microphone choice and placement, understanding loudspeakers and finally live mixing considerations. In addition to the in-class lectures, students will also take part in excursions to tour live performance venues and run practical hands-on sessions with live musicians to apply what they have learnt.

Module 11 – Introduction to Music Business (6 credits)

This module provides students with an essential overview of the contemporary music industry, and how it is constantly evolving due to recent significant developments, most notably technological advancements and the internet. Students will also gain an awareness of how they can achieve success for themselves and their songs as an independent artist, using the range of tools and accessible platforms available today.

Module 12 – Professional Development (6 credits)

This module guides students in their development as reflective and capable individuals in their desired fields by equipping them with essential practical and industry-relevant skill sets. Students are also encouraged to take concrete steps to develop themselves professionally through internal and external projects and training workshops. Selected students will also be given the opportunity to intern with the School's industry links.

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Module 13 – Collaborative Project (15 credits)

In this module, students will be given individual instruction and guidance as they prepare and progress through their final portfolio of a 3-song production album with students from other disciplines. It encourages them to utilise and further develop upon all the skills and techniques that they had picked up earlier in the academic year, and provides them with the opportunity to kick-start their professional careers in the music industry.