

LAPT

LONDON ACADEMY OF PROFESSIONAL TRAINING

CERTIFICATE

Adv Certificate in Live Electronic Performance & MIDI Tech

Practitioner Level



LAPT — London Academy of Professional Training

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Reference MU-EMP-P • Music and Performing Arts Centres

UKPRN 10067351 • Registered in England and Wales, company 4984798

AT A GLANCE

REFERENCE	MU-EMP-P
AWARD	Certificate
ASSESSMENT	440 marks — 264 to pass (60%)
PREREQUISITES	None
VALIDITY	Lifetime
AWARDING BODY	LAPT — London Academy of Professional Training

CURRICULUM

1

Advanced MIDI Techniques

5 chapters · 30 classes

90 marks

• 1 Chapter 1 — Understanding MIDI Protocols and Interfaces — 6 classes

› 1.1 Exploring the Fundamentals of MIDI Protocols

› 1.2 Decoding MIDI Message Structures

› 1.3 Identifying and Using MIDI Channels and Ports

› 1.4 Analyzing MIDI Interfaces and Their Connectivity

› 1.5 Configuring MIDI In and Out in Live Performance Settings

› 1.6 Troubleshooting Common MIDI Interface Issues

• 2 Chapter 2 — Advanced MIDI Sequencing Techniques — 6 classes

› 2.1 Exploring Sequencer Tools and Features

› 2.2 Programming Complex MIDI Patterns

› 2.3 Utilizing MIDI Effects for Dynamic Sequencing

› 2.4 Integrating Tempo and Time Signature Changes

› 2.5 Layering and Arranging Multi-Track Sequences

› 2.6 Fine-Tuning MIDI Data for Enhanced Performance

• 3 Chapter 3 — Integrating MIDI with Live Performance Setups — 6 classes

› 3.1 Understanding MIDI Connectivity in Live Setups

› 3.2 Exploring MIDI Controllers for Performance

› 3.3 Configuring MIDI Devices for Seamless Integration

› 3.4 Synchronizing MIDI with Live Audio Elements

› 3.5 Employing MIDI Mapping for Dynamic Control

› 3.6 Implementing MIDI Effects for Enhanced Live Performance

• 4 Chapter 4 — Creative MIDI Effects and Transformations — 6 classes

› 4.1 Exploring Advanced MIDI Effects

› 4.2 Understanding MIDI Transformations

› 4.3 Implementing Creative MIDI Modulation

› 4.4 Designing Rhythmic Patterns with MIDI

› 4.5 Building Harmonies through MIDI Alterations

› 4.6 Integrating MIDI Effects in Live Performance

• 5 Chapter 5 — Advanced MIDI Troubleshooting and Optimization — 6 classes

› 5.1 Identifying Common MIDI Issues

› 5.2 Analyzing MIDI Signal Flow

› 5.3 Diagnosing Latency and Timing Problems

› 5.4 Resolving MIDI Connectivity Errors

› 5.5 Optimizing MIDI Data Management

› 5.6 Applying Advanced MIDI Configuration Techniques

• 1 The Fundamentals of MIDI Technology — 6 classes

- › 1.1 Understanding MIDI: Basics and Structure
- › 1.2 Exploring MIDI Messages and Signals
- › 1.3 Connecting MIDI Devices: Setup and Configuration
- › 1.4 Harnessing MIDI Channels: Routing and Mapping
- › 1.5 Integrating Software and Hardware with MIDI
- › 1.6 Troubleshooting Common MIDI Issues

• 2 Understanding Electronic Instruments — 6 classes

- › 2.1 Exploring the Fundamentals of Electronic Instruments
- › 2.2 Understanding Sound Synthesis Techniques
- › 2.3 Navigating Signal Flow in Electronic Instruments
- › 2.4 Integrating MIDI Controls and Parameters
- › 2.5 Analyzing the Role of Digital Audio Workstations
- › 2.6 Applying Techniques for Live Electronic Performance

• 3 MIDI Sequencing and Control — 6 classes

- › 3.1 Understanding MIDI Protocol Basics
- › 3.2 Configuring MIDI Devices for Sequencing
- › 3.3 Building Your First MIDI Sequence
- › 3.4 Exploring MIDI Control Change Messages
- › 3.5 Implementing MIDI Automation Techniques
- › 3.6 Troubleshooting Common MIDI Sequencing Issues

• 4 Integration of DAWs and Electronic Instruments — 6 classes

- › 4.1 Understanding DAW-Electronic Instrument Communication
- › 4.2 Setting Up MIDI Connections Between DAWs and Instruments
- › 4.3 Configuring Software for Seamless Integration
- › 4.4 Exploring Real-Time Control and Automation Techniques
- › 4.5 Synthesizing Sounds Using DAWs and External Gear
- › 4.6 Troubleshooting Common Integration Issues

• 5 Advanced Techniques in Live Electronic Performance — 6 classes

- › 5.1 Exploring MIDI Signal Routing Techniques
- › 5.2 Understanding Synthesis Parameters for Live Manipulation
- › 5.3 Enhancing Performance with Real-time Effect Processing
- › 5.4 Integrating Hardware Controllers for Dynamic Interaction
- › 5.5 Implementing Looping Strategies for Seamless Transitions
- › 5.6 Mastering Use of Automation in Performance Sets

• 1 Understanding Live Performance Environments — 6 classes

- › 1.1 Exploring Different Live Performance Venues
- › 1.2 Analyzing Acoustic Properties of Performance Spaces
- › 1.3 Understanding Stage Layouts and Configurations
- › 1.4 Identifying Essential Live Sound Equipment
- › 1.5 Integrating MIDI Technology in Live Setups
- › 1.6 Customizing Performance Environments for Musical Genres

• 2 MIDI Technology and Setup — 6 classes

- › 2.1 Understanding MIDI Protocols and Their Functions
- › 2.2 Identifying and Connecting MIDI Devices
- › 2.3 Configuring MIDI Channels and Settings
- › 2.4 Exploring MIDI Data Types and Their Applications
- › 2.5 Utilizing MIDI Controllers in Live Performance
- › 2.6 Troubleshooting Common MIDI Setup Issues

• 3 Designing Live Performance Rigs — 6 classes

- › 3.1 Understanding the Basics of Live Performance Rigs
- › 3.2 Exploring Essential Equipment for Live Setups
- › 3.3 Integrating MIDI Technology into Live Rigs
- › 3.4 Configuring Audio Interfaces and Controllers
- › 3.5 Designing Custom Signal Flow for Live Performances
- › 3.6 Troubleshooting and Optimizing Live Rig Performance

• 4 Sound Design for Live Performance — 6 classes

- › 4.1 Exploring Fundamental Principles of Sound Design
- › 4.2 Understanding the Role of MIDI in Live Sound
- › 4.3 Crafting Synthesizer Sounds for Live Performance
- › 4.4 Utilizing Effects to Enhance Live Soundscapes
- › 4.5 Implementing Real-Time Sound Manipulation Techniques
- › 4.6 Designing Cohesive Sound Experiences for Live Audiences

• 5 Performance Techniques and Improvisation — 6 classes

- › 5.1 Exploring the Fundamentals of Live Performance Techniques
- › 5.2 Understanding MIDI Technology for Performance
- › 5.3 Developing Skills in Real-Time Sound Manipulation
- › 5.4 Applying Creative Improvisation Strategies on Stage
- › 5.5 Integrating Advanced MIDI Controllers into Live Sets
- › 5.6 Evaluating and Refining Performance through Feedback

• 1 Understanding Basic Signal Flow in Electronic Music Gear — 6 classes

- › 1.1 Identifying the Components of Basic Signal Flow
- › 1.2 Mapping Signal Pathways in Electronic Music Setups
- › 1.3 Exploring Common Connectivity Options
- › 1.4 Analyzing Signal Flow Diagrams
- › 1.5 Recognizing and Resolving Common Signal Blockages
- › 1.6 Applying Basic Troubleshooting Techniques

• 2 Advanced Signal Routing Techniques — 6 classes

- › 2.1 Understanding Signal Paths in Live Performance
- › 2.2 Exploring MIDI Routing Capabilities
- › 2.3 Configuring Audio Interfaces for Complex Sources
- › 2.4 Implementing Multi-Bus Systems for Flexibility
- › 2.5 Utilizing Digital Audio Workstations for Routing
- › 2.6 Troubleshooting Common Signal Flow Issues

• 3 Introduction to MIDI Signal Pathways — 6 classes

- › 3.1 Understanding MIDI Basics
- › 3.2 Exploring MIDI Connections
- › 3.3 Configuring MIDI Devices
- › 3.4 Analyzing Signal Flow Diagrams
- › 3.5 Identifying Common MIDI Issues
- › 3.6 Implementing MIDI Troubleshooting Techniques

• 4 Troubleshooting Signal Flow Issues in Live Performances — 6 classes

- › 4.1 Understanding Basic Signal Flow Concepts
- › 4.2 Identifying Common Signal Flow Problems
- › 4.3 Analyzing Signal Path in Live Setups
- › 4.4 Using Diagnostic Tools to Trace Signal Issues
- › 4.5 Implementing Quick Fixes for Signal Disruptions
- › 4.6 Developing Strategies for Preemptive Troubleshooting

• 5 Integrating Hardware and Software Signal Chains — 6 classes

- › 5.1 Exploring Signal Flow Basics in Live Electronic Performance
- › 5.2 Understanding MIDI Technology and Its Role in Signal Chains
- › 5.3 Setting Up Hardware Interfaces for Optimal Signal Integration
- › 5.4 Configuring Software for Seamless Signal Processing
- › 5.5 Troubleshooting Common Signal Flow Issues
- › 5.6 Applying Signal Flow Knowledge to Live Performance Setup

• 1 Understanding Venue Acoustics and Design — 6 classes

- › 1.1 Exploring Basic Acoustic Principles
- › 1.2 Analyzing Venue Shapes and Their Impact on Sound
- › 1.3 Identifying Common Acoustic Challenges in Venues
- › 1.4 Evaluating Materials and Their Acoustic Properties
- › 1.5 Designing Effective Acoustic Treatments
- › 1.6 Applying Acoustics Knowledge to Real-World Venue Scenarios

• 2 Audio Equipment and Setup for Live Performance — 6 classes

- › 2.1 Understanding Audio Signal Flow in Live Settings
- › 2.2 Identifying and Using Essential Audio Equipment
- › 2.3 Setting Up and Testing Microphones for Live Performance
- › 2.4 Configuring Mixers for Optimal Sound Output
- › 2.5 Connecting and Managing Stage Monitors
- › 2.6 Troubleshooting Common Live Audio Issues

• 3 MIDI Technology and Integration in Live Settings — 6 classes

- › 3.1 Understanding MIDI: Basics and Key Concepts
- › 3.2 Exploring MIDI Devices: Types and Functions
- › 3.3 Configuring MIDI Hardware for Live Settings
- › 3.4 Integrating MIDI Controllers with Software
- › 3.5 Troubleshooting Common MIDI Issues in Venues
- › 3.6 Enhancing Live Performances with Advanced MIDI Techniques

• 4 Advanced Signal Routing and Soundcheck Techniques**• 5 Live Performance Optimization and Troubleshooting**