

LAPT

LONDON ACADEMY OF PROFESSIONAL TRAINING

CERTIFICATE

Adv Certificate in Studio Production & Mixing Techniques

Practitioner Level



LAPT — London Academy of Professional Training

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

UKPRN 10067351 • Registered in England and Wales, company 4984798

AT A GLANCE

REFERENCE	MU-MPR-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 Studio Technology

5 chapters · 30 classes 90 marks

• 1 Understanding Advanced Audio Interfaces and Signal Flow — 6 classes

› 1.1 Exploring the Functionality of Advanced Audio Interfaces

› 1.2 Deconstructing Signal Flow in Studio Environments

› 1.3 Analyzing Connectivity Options in Professional Audio Setups

› 1.4 Understanding the Impact of Digital and Analog Converters

› 1.5 Streamlining Signal Routing for Optimal Studio Workflow

› 1.6 Applying Advanced Interface Settings for Improved Mixing Techniques

• 2 Exploring Advanced Microphone Techniques and Applications — 6 classes

› 2.1 Understanding Polar Patterns and Their Impact on Sound Capture

› 2.2 Identifying and Selecting Microphones for Specific Instruments

› 2.3 Exploring Advanced Placement Techniques for Microphone Arrays

› 2.4 Utilizing Advanced Techniques for Close and Ambient Miking

› 2.5 Implementing Stereo Miking Methods for Enhanced Sound Imaging

› 2.6 Integrating Specialty Microphones in Complex Studio Setups

• 3 Mastering DAW Automation and MIDI Integration — 6 classes

› 3.1 Understanding DAW Automation Essentials

› 3.2 Exploring MIDI Controllers and Protocols

› 3.3 Implementing Dynamic Automation Techniques

› 3.4 Integrating MIDI for Enhanced Studio Workflow

› 3.5 Utilizing Automation in Signal Processing

› 3.6 Mastering Complex MIDI and Automation Systems

• 4 Advanced Mixing Console Operations and Functions — 6 classes

› 4.1 Understanding the Signal Flow in Advanced Mixing Consoles

› 4.2 Exploring Advanced EQ and Dynamics Processing Tools

› 4.3 Configuring and Utilizing Group Bus Channels

› 4.4 Implementing Aux Sends and Returns for Effect Routing

› 4.5 Mastering Automation Features for Dynamic Mixing

› 4.6 Troubleshooting Common Issues in Mixing Console Operations

• 5 Utilizing Cutting-Edge Software in Audio Production — 6 classes

› 5.1 Exploring Advanced Audio Software: An Overview

› 5.2 Navigating New Interfaces: Enhancing Workflow in DAWs

› 5.3 Utilizing AI Tools: Transforming Audio Editing and Mixing

› 5.4 Applying Virtual Instruments: Expanding Your Sound Palette

› 5.5 Leveraging Multi-Track Softwares: Techniques for Dynamic Studio Sessions

› 5.6 Integrating Plugins and Effects: Achieving Professional Sound Quality

• 1 Fundamentals of Audio Perception — 6 classes

- › 1.1 Exploring the Basics of Sound Waves
- › 1.2 Understanding Frequency and Pitch
- › 1.3 Analyzing Amplitude and Loudness
- › 1.4 Examining Timbre and Harmonics
- › 1.5 Identifying Spatial Audio Cues
- › 1.6 Applying Psychoacoustic Principles in Mixing

• 2 Analyzing Audio Frequency Response — 6 classes

- › 2.1 Understanding Frequency Response: Key Concepts and Terminology
- › 2.2 Examining Frequency Response Curves: Visual Analysis Techniques
- › 2.3 Identifying Common Frequency Response Issues in Recordings
- › 2.4 Utilizing Equipment for Frequency Response Measurement
- › 2.5 Analyzing Frequency Response with Spectrum Analyzers
- › 2.6 Applying Solutions to Common Frequency Response Problems

• 3 Identifying and Diagnosing Common Audio Problems — 6 classes

- › 3.1 Understanding Audio Signal Flow
- › 3.2 Identifying Basic Audio Issues
- › 3.3 Analyzing Frequency Response Problems
- › 3.4 Detecting Phase Cancellation
- › 3.5 Diagnosing Distortion and Clipping
- › 3.6 Applying Troubleshooting Techniques

• 4 Advanced Problem Solving in Audio Mixes — 6 classes

- › 4.1 Identifying Common Issues in Audio Mixes
- › 4.2 Analyzing Frequency Imbalances
- › 4.3 Addressing Phase and Time Alignment Problems
- › 4.4 Solving Dynamic Range and Compression Challenges
- › 4.5 Deconstructing and Enhancing Mix Clarity
- › 4.6 Applying Advanced EQ and Filtering Techniques

• 5 Practical Applications of Audio Analysis Tools — 6 classes

- › 5.1 Understanding Audio Analysis Tools and Their Functions
- › 5.2 Identifying Frequency Patterns in Mixes
- › 5.3 Diagnosing Common Audio Issues Using Spectral Analysis
- › 5.4 Applying Phase Correlation to Detect Channel Errors
- › 5.5 Utilizing Loudness Meters to Balance Audio Levels
- › 5.6 Implementing Analyzing Tools for Final Mix Improvements

• 1 Chapter 1 — Understanding Mix Elements and Sound Characteristics — 6 classes

- › 1.1 Identifying Core Mix Elements
- › 1.2 Analyzing Frequency Ranges and Sound Characteristics
- › 1.3 Exploring Dynamics and Their Impact on a Mix
- › 1.4 Understanding the Role of Panning and Stereo Imaging
- › 1.5 Investigating Reverb and Space in Mixing
- › 1.6 Applying EQ Techniques for Balance and Clarity

• 2 Chapter 2 — EQ Techniques and Frequency Balancing — 6 classes

- › 2.1 Understanding EQ: Fundamentals and Types
- › 2.2 Identifying Frequency Ranges and Their Impact
- › 2.3 Applying EQ for Clarity and Separation
- › 2.4 Techniques for Corrective EQ
- › 2.5 Enhancing Instruments and Vocals with EQ
- › 2.6 Balancing the Mix: EQing in Context

• 3 Chapter 3 — Dynamics Processing with Compression and Limiting — 6 classes

- › 3.1 Understanding Compression: Basic Principles and Uses
- › 3.2 Exploring Compressor Parameters: Threshold, Ratio, Attack, and Release
- › 3.3 Applying Compression: Dynamic Range Control in Practice
- › 3.4 Mastering Limiting: Ensuring Peak Control and Loudness
- › 3.5 Comparing Compression and Limiting: Key Differences and Applications
- › 3.6 Creative Techniques: Enhancing Sound with Dynamic Effects

• 4 Chapter 4 — Advanced Spatial Effects and Creative Use of Reverb and Delay — 6 classes

- › 4.1 Understanding Spatial Effects in Music Production
- › 4.2 Exploring Advanced Reverb Techniques for Depth
- › 4.3 Applying Creative Delay Settings for Unique Soundscapes
- › 4.4 Integrating Reverb and Delay for Cohesive Atmospheres
- › 4.5 Experimenting with Unconventional Spatial Effects
- › 4.6 Evaluating Spatial Effect Techniques in Professional Mixes

• 5 Chapter 5 — Automation Techniques and Finalizing a Mix — 6 classes

- › 5.1 Understanding Automation in Music Production
- › 5.2 Exploring Different Types of Automation
- › 5.3 Applying Automation to Enhance Dynamics
- › 5.4 Utilizing Automation for Panning and Effects
- › 5.5 Techniques for Automating Mix Transitions
- › 5.6 Finalizing a Mix: Refine and Review Automation

• 1 Introduction to Digital Audio Workstations — 6 classes

- › 1.1 Understanding Digital Audio Workstation Interfaces
- › 1.2 Navigating the DAW: Tools and Functions
- › 1.3 Exploring Audio and MIDI Tracks
- › 1.4 Utilizing Basic Editing Techniques
- › 1.5 Implementing Virtual Instruments and Effects
- › 1.6 Exporting and Saving Projects Efficiently

• 2 Navigating DAW Interfaces and Controls — 6 classes

- › 2.1 Exploring the Basic DAW Interface
- › 2.2 Understanding Track Layouts and Signal Paths
- › 2.3 Mastering the Mixer Panel Controls
- › 2.4 Customizing DAW Views for Optimal Workflow
- › 2.5 Navigating and Utilizing Toolbars Efficiently
- › 2.6 Applying Keyboard Shortcuts for Enhanced Productivity

• 3 Advanced MIDI Programming Techniques — 6 classes

- › 3.1 Exploring MIDI Protocols and Data Structures
- › 3.2 Utilizing MIDI Controllers for Enhanced Expression
- › 3.3 Mastering MIDI Editing Tools and Techniques
- › 3.4 Implementing Advanced MIDI Sequencing Strategies
- › 3.5 Integrating MIDI with Virtual Instruments Effectively
- › 3.6 Automating MIDI Parameters for Dynamic Productions

• 4 Audio Recording and Editing Mastery — 6 classes

- › 4.1 Exploring Digital Audio Workstation Interfaces
- › 4.2 Configuring Audio Inputs and Outputs
- › 4.3 Mastering the Art of Multitrack Recording
- › 4.4 Implementing Effective Editing Techniques
- › 4.5 Applying Audio Effects and Plugins
- › 4.6 Finalizing Mixes with Precision Editing

• 5 Mixing Strategies and Sound Manipulation — 6 classes

- › 5.1 Understanding Core Mixing Concepts
- › 5.2 Exploring EQ Techniques
- › 5.3 Implementing Dynamic Processing
- › 5.4 Utilizing Reverb and Delay Effects
- › 5.5 Crafting a Balanced Mix
- › 5.6 Analyzing and Refining Final Mixes

• 1 Understanding the Elements of a Professional Production Workflow — 6 classes

- › 1.1 Exploring the Components of a Professional Studio Setup
- › 1.2 Understanding Signal Flow in Music Production
- › 1.3 Implementing Project Planning Techniques
- › 1.4 Utilizing DAWs for Efficient Workflow
- › 1.5 Optimizing Time Management and Session Organization
- › 1.6 Evaluating and Refining Production Processes

• 2 Project Planning and Pre-Production Techniques — 6 classes

- › 2.1 Understanding Project Requirements and Goals
- › 2.2 Analyzing Client Briefs and Initial Concepts
- › 2.3 Researching and Selecting Appropriate Tools and Resources
- › 2.4 Developing a Detailed Project Timeline and Checklist
- › 2.5 Establishing Communication and Collaboration Strategies
- › 2.6 Preparing a Comprehensive Pre-Production Plan

• 3 Efficient Recording Session Management — 6 classes

- › 3.1 Understanding the Stages of a Recording Session
- › 3.2 Setting Up an Optimal Recording Environment
- › 3.3 Organizing Session Files and Track Layouts
- › 3.4 Implementing Time Management Techniques
- › 3.5 Communicating Effectively with the Production Team
- › 3.6 Troubleshooting Common Recording Session Issues

• 4 Advanced Mix Structure and Dynamic Processing — 6 classes

- › 4.1 Understanding Advanced Mix Structures
- › 4.2 Exploring Dynamic Range Compression Techniques
- › 4.3 Implementing Multi-Band Compression Strategies
- › 4.4 Analyzing Effects of Dynamic Processing on Mix Clarity
- › 4.5 Optimizing Dynamic Processing for Genre-Specific Mixes
- › 4.6 Evaluating Mix Balance through Dynamic Adjustment

• 5 Finalization and Delivery of Production Outputs — 6 classes

- › 5.1 Understanding Finalization in Audio Production
- › 5.2 Optimizing Audio Masters for Different Platforms
- › 5.3 Implementing Loudness Standards and Specifications
- › 5.4 Exporting and Encoding Audio Files for Delivery
- › 5.5 Managing Metadata and Tagging in Audio Files
- › 5.6 Quality Checking Final Production Outputs

• 1 Understanding Sound Fundamentals — 6 classes

- › 1.1 Exploring Sound Waves and Their Properties
- › 1.2 Analyzing Frequency and Pitch
- › 1.3 Understanding Amplitude and Dynamics
- › 1.4 Investigating the Nature of Timbre
- › 1.5 Examining the Role of Acoustic Environments
- › 1.6 Applying Sound Fundamentals in Creative Production

• 2 Exploring Synthesis Techniques — 6 classes

- › 2.1 Understanding the Basics of Synthesis
- › 2.2 Exploring Subtractive Synthesis Techniques
- › 2.3 Discovering Additive Synthesis Methods
- › 2.4 Harnessing FM Synthesis for Sound Creation
- › 2.5 Implementing Wavetable Synthesis in Projects
- › 2.6 Designing Sounds through Advanced Synthesis Techniques

• 3 Utilizing Digital Signal Processing — 6 classes

- › 3.1 Exploring the Essentials of Digital Signal Processing
- › 3.2 Understanding Digital Signal Chain and Workflow
- › 3.3 Applying EQ Techniques to Shape Sound
- › 3.4 Utilizing Compression for Dynamic Control
- › 3.5 Implementing Reverb and Delay for Spatial Effects
- › 3.6 Leveraging Advanced DSP for Creative Sound Design

• 4 Advanced Sound Manipulation — 6 classes

- › 4.1 Exploring Advanced Modulation Techniques
- › 4.2 Harnessing the Power of Granular Synthesis
- › 4.3 Sculpting Sound with Dynamic EQ
- › 4.4 Utilizing Time-Based Effects for Transformation
- › 4.5 Integrating Field Recordings into Projects
- › 4.6 Applying Creative Layering in Sound Design

• 5 Creative Sound Design Applications — 6 classes

- › 5.1 Exploring Sound Synthesis Techniques
- › 5.2 Manipulating Audio with Effects Processors
- › 5.3 Designing Unique Soundscapes
- › 5.4 Implementing Foley and Field Recording Techniques
- › 5.5 Integrating Sound Design in Multimedia Projects
- › 5.6 Innovating with Hybrid Sound Design Approaches