

ALCHEMEA

1-Day Introduction to Music Technology: Schedule

SATURDAY: 10am to 6pm

Session 1: Introduction and Setup

- **Introduction to music technology and production:** Course objectives. Stages of production and what you can achieve: composition, performing, recording, editing, programming, mixing, mastering.
- **Tools of the trade:** What will you need? Microphone, audio interface, computer, midi interface, midi input device, external sound modules/keyboards, music production software, monitoring, environment. Configuring a simple setup.
- **Optimising your computer for music:** mac vs pc, desktop vs laptop, CPU and RAM, USB and Firewire, DSP cards (PCI and PCIe), drivers, hard drives, partitions, archiving.
- **Music Production Software:** What are the options? Protools, Logic, Cubase, Reason, Ableton Live, Garageband.

Session 2: Theory of sound

- **Theory of sound:** Basic concepts. What is sound? How we hear. Frequency and amplitude. Stereo.
- **Digital Audio Explained:** Bit depth and sample rate. AD DA converters.

Session 3: Microphones, Recording & Basic Editing

- **Microphones:** Introduction to microphone types and their applications, connections, preamps, DIs and gain structure.
- **Simple recording techniques:** Monitoring - headphones and latency. Click track, count off, punching in and out, takes, cycle recording.
- **Editing your recording:** Cutting, pasting, moving, compiling, crossfades.

Session 4: MIDI, signal flow and mixing techniques

- **MIDI:** What is MIDI? Connections, external sound modules and keyboards. MIDI in the virtual environment, software synths and virtual instruments.

Session 5: Mixing

- **Mixing desks and signal flow:** Basic concepts: Channel, insert, send, pan, fader, aux/bus, output. Virtual mixing environments vs hardware mixing environments (analogue and digital). Control surfaces.
- **Mixing techniques 1:** Audio processors - dynamics and equalisation, effects, reverb, delay, modulation effects and sound enhancers.

Session 6: Mastering and Creating a Master CD

- **Bouncing down:** Making a stereo master.
- **Mastering:** Why is it necessary? How can you do it?
- **Burning an audio CD and making MP3s.**
- **Backing up your work**