

# ALCHEMEA

## Recording Techniques Weekend Class

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### Course Aim

The course aims are to help students make informed choices regarding the right microphones and techniques for their recording situations and get the best from their equipment and acoustic spaces.

Day 1 is spent in our technology classroom examining the theoretical aspects of the recording process. This will help you to understand what Marcel will demonstrate on day 2 during the band recording session. This will include seeing a full multi microphone drum set up.

### Course Content

The following topics are all covered over the intensive 2 day sessions:

- **Digital Recording Theory:** A-D Converters, sample rate, bit depth, clock source
- **Acoustics:** Live room design, making the best use of your acoustic spaces
- **Recording Set Up:** Interconnections, pre-amplifiers, audio interfaces, phantom power, simple recording set up examples (vocals, drums, acoustic guitar etc...)
- **Microphone Design:** dynamic, moving coil, ribbon, condenser / capacitor, valve, electrets, basic microphone electronics, manufacturers, current ranges, classic mics and their applications, directional characteristics (omni, figure of 8, cardioid, hypercardioid, pressure zone/gun)
- **General Microphone Techniques:** close, stereo (AB, XY, ORTF, MS, Blumlein, Binaural/Dummy head), ambient/room micing, multi-micing.
- **Mic techniques for specific instruments:** vocals, acoustic guitars, drums, amped guitars, pianos, bass, percussion, strings, brass
- **Session Procedure:** session preparation, click tracks, count off, pre and post roll, punching in and out, destructive and non-destructive recording, creating a tempo map prior to recording. Laying one performance at a time and overdubbing (takes, playlists, and comping), input only monitoring and auto-input monitoring, recording whole performances or in sections and loops, dealing with performers, recording the perfect take or knowing what to “fix in the mix”.
- **Headphone Monitoring:** setting up separate cue mixes for different performers, solo modes when recording
- **I/O Setup:** latency, CPU, DSP and buffer sizes, monitoring with plug-ins active (eg. Elec guitar to DI input with amp plug-in, and effects on)
- **Practical Demonstration 1:** acoustic guitar and vocal, multi-miced drums
- **Practical Demonstration 2:** multi-miced drums (cont.)