

Sinevibes

School of Audio and Music Technologies



Sound Design and Music Production
with Roland V-Synth family

Overview

Sound Design and Music Production with Roland V-Synth family is an in-depth course for those who'd like to unveil the full potential of their amazing synthesizers. It is full of exciting lectures, engaging personal practice and unique tips and tricks that will inspire great new musical ideas and let you realize them professionally from start to finish.

After graduating this course, you will learn:

- The essential basics of sound, recording and musical instruments.
- Internal structure and technologies of the V-Synth family.
- Creating your own synthesized sounds, from simple synth, bass and pad sounds to complex animated and rhythmically modulated textures.
- The magic of the VariPhrase spectral audio resynthesis.
- Getting the most out of the COSM filters.
- Using the effects processors to spice up sounds.
- Creating phrases and rhythms using the arpeggiator.
- Music post-production.
- Connecting the V-Synth with outboard gear and computers.
- Live performance.



Programme

The phenomenon of sound

- The essence of sound, how it gets born and propagates through the air and other media.
- Understanding spectrum and time.
- Perception of sound by human.
- Recording and reproduction of sound. Analog and digital audio forms.

Musical instruments

- History and evolution of musical instruments. From human voice, drums, winds, strings and piano to electric guitars, analog and digital synthesizers: fundamental principles and distinctions.
- Overview of modern sound synthesis methods.
- Internal structure and core technologies of Roland V-Synth instruments.

Synthesizing sounds

- A look into the Roland V-Synth synthesizer engine.
- Structures and elementary building blocks of a patch: oscillator, COSM filter, modulator, amplifier, step modulator.
- Creating classic analog synth sounds.
- Working with patch zones.

VariPhrase

- Capturing and importing audio samples. Editing and encoding.
- Introduction to VariPhrase spectral processing.
- Sample synchronization and realtime manipulation. Rearranging and rephrasing techniques.
- Advanced sound design with time freezing and modulation.

COSM algorithms

- COSM polyphonic processors: main principles, core parameters and usage examples.
- Overdrive/Distortion, Amp Simulator, Waveshaper, Resonator, Speaker Simulator, TVF, Dual Filter, Dynamic TVF, TB Filter, Sideband Filter, Comb Filter, Compressor, Limiter, Lo-Fi, Frequency Shifter.
- Processing external audio signals. Live effects switching via zones.

Modulators

- Oscillator hard sync.
- Ring modulator.
- Envelope modulator.
- FM.

Effects processing

- Using the MFX, Chorus and Reverb processors.
- Using outboard effects processors.

Vocoder

- Introduction to the vocoder technology. Carrier and modulator signals.
- Processing human voice.
- Processing rhythmic sound sources.
- Using vocoder as an advanced filter. Switching carrier waveforms via zones.

Recording and post-production

- Composing phrases and rhythms with the V-Synth's arpeggiator.
- Synchronizing different sound sources.
- Using with computers and other gear.

Live performance

- Data management.
- Preparing a live performance: playing parts, expression, applying effects, using with other gear.