Music Technology Modules for Visiting Students 2024/25

Studying Music Technology develops practical creative, technical, theoretical and critical academic skills. These subjects also help individuals develop the self-discipline necessary for focused, highly specialist work. The ability to work well in groups, to collaborate across disciplines and media, to be flexible and fluid between commercial, artistic and academic contexts, to critically and objectively engage in analysis and debate, and to discover creative solutions to problems are skills much sought after by employers.

Level 4 modules cover digital and analogue sound creation, recording and production techniques, sequencing, synthesis and programming, spatial studies, context, history and criticism, and 21st Century musicianship.

Levels 5 and 6 modules offer students the chance to develop specialist skills in areas such as audio post-production for media, experimental electronica, acoustics and perception, performing with technology and live sound reinforcement.

Updated April 2024/MG/PJW

Entry requirements: GPA of 2.75 or above (out of 4.0) or equivalent

Pre-requisites:

- **Level 4:** prior experience using recording equipment and software is required, especially if you join in the Spring semester (Study Option 3)
- **Level 5**: prior introductory university-level study/practice of music and prior intermediate experience using recording equipment and software is required, especially if you join in the Spring semester Option 3).
- **Level 6:** substantial prior study of music technology at university level is required.
- Auditions may be required for performance options.

Taught at: Kingston Hill campus

KEY TO MODULE DESCRIPTORS	
SUITABILITY OF MODULE FOR STUDENTS VISITING KU ON STUDY OPTION ____	
1:	Indicates module is suitable for students visiting KU on Study Option 1 (Whole Year)
2:	Indicates module is suitable for students visiting KU on Study Option 2 (Autumn)
3:	Indicates module is suitable for students visiting KU on Study Option 3 (Spring)

Kingston University London

Music Technology Modules for Visiting Students 2024/25

Notes:

1. All modules are at undergraduate level.
2. Students enrolled on Study Option 1 are required to study the entire module.
3. Whilst the University makes every effort to ensure that this information is correct at the time of updating (April 2024), it cannot accept responsibility for omissions or subsequent changes. Module availability and content may be subject to change, as part of the University's policy of continuous improvement and development.
4. Details of assessment for students enrolled on either Study Option 2 or 3 where provided are **indicative** only and may also be subject to change as part of the above policy.

CODE	TITLE	SUITABILITY KEY		
LEVEL 4 – INTRODUCTORY				
MU4201	Synthesis, Sampling & Sequencing	1	2	3
MU4203	Recording & Engineering	1	2	3
MU4204	Sonic Environments	1	2	3
LEVEL 5 – INTERMEDIATE				
MU5201	The Visconti Studio	1		
MU5205	Exploring Music Technology	1		
MU5302	Audio Post-Production	1	2	3
MU5204	Performing with Technology	1	2	3
LEVEL 6 – ADVANCED				
MU6307	Live Sound & Event Management	1	2	3
MU6311	Advanced Production	1		

LEVEL 4 – INTRODUCTORY

Module Code	**MU4201**
Module Title	**Synthesis, Sampling & Sequencing**
Credits	• Full Year: 8 (US) 15 (ECTS) • Single Semester: 4 (US) 7.5 (ECTS)
Level	4
Prerequisites	Prior experience using recording equipment and software is required.
Suitability	• Study Options 1 *or* 2 *or* 3 • Not open to Erasmus as Level 4
Module Content	This module provides students with hands-on instruction and practice in synthesiser programming, sampling, sequencing, electronic composition and orchestration. Students will learn how to create unique instrument patches and sounds, and use them effectively in music productions. The musical concepts of melody, rhythm, harmony, and form will be explored as applied to the principles and techniques of writing and arranging using computers. This module is taught using the Logic Pro X DAW software. Topics: • The harmonic series and properties of sound • Synthesis: additive, subtractive, FM, wavetable, granular, physical modelling • Sampling, audio editing, instrument building • Sequencing techniques with industry standard software • Analogue synthesis: subtractive, modular systems • Beat making and groove writing: rhythmic recognition, pitch and frequency, melodic • characteristics, intervals • Harmony including scales and modes, recognition and notation of chords, harmonic progressions and modulation • Instrumentation, arrangement and basic orchestration in a variety of musical styles • Aural recognition, description and evaluation of instrumentation, sonic characteristics and production techniques • Musical form ➢ **Autumn Semester: Beatwork, Synthesis** ❖ ***Beatwork, Synthesis*** • Module intro: the harmonic series and properties of sound and orchestration • Pulse, tempo, metre, groove; ways of composing rhythm • Time Signatures, changes, split metres, polyrhythm • Sampling percussion & beats • Synthesising percussion & beats

	❖ ***Synthesis*** • 8bit sound design (music & effects), pentatonic • Subtractive Synthesis - mono bass, analogue lead, performativity, modes (part 1) • Minor Modes, Wavetable Synthesis Workshop • Modeling Synthesis, String Synthesis (Streichfett) • Evolving Atmospheric Pad Design [workshop] • Frequency Modulation Synthesis ➢ **Spring Semester Topics: Sampler Instruments and Harmonisation; Style & Arrangement** ❖ ***Sampler Instruments and Harmonisation*** • SAMPLING - Historical Context / Bespoke sampler instrument building (part 1) • Bespoke sampler instrument building (part 2): Intro to Alchemy • Chord formulas: extended chords, building them, using them in progressions • Reharmonisation techniques • Aesthetics and Mix processes ❖ ***Style & Arrangement*** • Style and Arrangement 1 - Texture Building, working with String Patches • Style & Arrangement 2 - orchestration style of Bernard Herrmann • Style & Arrangement 3 - developing & elaborating a musical idea
Teaching	2-hour lecture/workshop and 1-hour seminar weekly at computer workstations with keyboards and DAW software.
Assessment	Study Option **1**: • Prescribed tasks (60%): Beatwork (20%), Synthesis Demo (20%), Sampling Project (20%) • Production Presentation (40%) – individual production MIDI project (minimum duration 2:30) that features original synthesised and sampled sounds/instruments.
	Study Option **2:** • 3 x tasks (8 bit sound design, beatwork, hardware syntho demo) – 33.3% each
	Study Option **3:** • Portfolio including elements of study option 1 assessment
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Module Code	**MU4203**
Module Title	**Recording & Engineering**
Credits	• Full Year: 8 (US) 15 (ECTS) • Single Semester: 4 (US) 7.5 (ECTS)
Level	4
Prerequisites	Prior experience using studio equipment and software is required.
Suitability	• Study Options 1 or 2 or 3 • Not open to Erasmus as Level 4
Module Content	This module offers hands-on study in modern recording and sound engineering. Students will learn about analogue and digital consoles, microphones, audio signal flow, DAW session management, the principles of signal processing, audio editing and contemporary mixing techniques. Students will also receive training in critical and diagnostic listening. MU4203 is a predominantly PRACTICAL module. The focus will be on the demonstration of skills in using recording equipment, managing sessions, operating as an effective member of a collaborative team, operating industry standard DAW software (Logic & Pro Tools), students' efficiency in working alone, and with others, in the studio environment. • Microphone types and their uses • Mixing consoles and signal path • Use of audio processors (compression, reverb, delay, equalisation etc.) • Audio editing and manipulation in digital audio workstations • Working in groups to capture the effective recordings within the studio environment • Understand and operate a range of studio equipment • Identify and troubleshoot problems within the recording studio • Apply listening skills and theoretical knowledge to recording and mixing • Mixing and bouncing multitrack projects ➢ **Autumn Topics**: **Microphones and signal flow, Tracking** ❖ ***Microphones and Signal Flow*** • Lodge Orientation - recording percussion • Stereo micing techniques; Recording Upright Piano • Recording drums - Glyn Johns VS multi mic • Mic Workshop - guitars and amps, re-amping

	❖ ***Tracking*** • Tracking workflow 1 - live recording • Tracking workflow 2 - overdubs, punching in • Tracking workflow 3 - the lead vocal • Take management / comping / mutes, edits and crossfades • Group recording project workshops • Mix workshop - fixing Loving Is Easy ➢ **Spring Semester: Edit/Mix; Mixing; Mastering** ❖ ***Edit/Mix*** • SSL studio induction, console routing • Organising a Project - mix session using SSL console and analogue hardware • Organising a Project Mix & Tightening the Performance • Drum replacement and working with MIDI • Stem Mix workflow: EQ, compression, bus FX Mixing Vocals ❖ ***Mixing*** • Big Mix 1: Aux/Bus FX, harmonic, spatial & timed effects Production Analysis • Mix Workshop 2: You, Me & The Radio ❖ ***Mastering*** • Mastering Workshop: Logic & Pro Tools
Teaching	Lectures and workshops
Assessment	Study Option **1**: • 30-minute practical studio operations test (20%) • group recording assignment (30%) • individual mixing and mastering assignment (50%)
	Study Option **2**: • 30-minute practical studio operations test (40%) • Group recording project (60%)

	Study Option **3:** • Portfolio including elements of study option 1 assessment
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Module Code	**MU4204**
Module Title	**Sonic Environments**
Credits	• Full Year: 8 (US) 15 (ECTS) • Single Semester: 4 (US) 7.5 (ECTS)
Level	4
Prerequisites	Prior experience using studio equipment and software
Suitability	• Study Options 1 *or* 2 *or* 3 • Not open to Erasmus students as Level 4
Module Content	This module provides an introduction to the science and aesthetics of real and imagined environments, their acoustics and spatial phenomena. Students will engage in creative practice research that will consider a wide range of inter-connected practices: from location recording and measuring impulse responses in real environments, to examining how sound behaves in virtual spaces, soundtracks and soundscapes. Students will learn the fundamentals of acoustics, sound diffusion and absorption, and get to grips with the basic operation of physical modelling software applications. Overall topics: • Introduction to acoustics • Soundscape and listening modes • Basic sound perception • Location recording • Convolution reverb and impulse responses • Spatialisation cues • Physical modelling ➢ **Autumn Semester:** • Off-site recording

	• Musical memory, listening modes and acousmatic/electroacoustic music • Impulse responses, reverb and virtual spaces • Binaural recording and postproduction • Postproduction for virtual environment demo • Virtual environment demo checklist • Sound design and Foley • Podcasts and video editing for practice research investigation • Principles of acoustics • Psychoacoustics and auditory masking ➢ **Spring Semester:** • 5.1 mixing and postproduction • Sound installations and sound art • Spatialisation in other media • Studio design • Sonic continuity • Soundscapes, soundwalks and acoustic ecology • Physical modelling • Creative Uses of Microphones
Teaching	Weekly lectures and workshops
Assessment	Study Option **1**: • Virtual Environment Demo (30%) – submission of brief soundscape demonstration (min duration of 1:30) and a saved software patch that contains a bespoke virtual sonic environment created using off-site recording equipment and convolution plugins**.** • Practice Research Investigation (30%) – a 5-minute recorded audio or audio-visual investigation (either podcast or video tutorial) that discusses the application of a virtual environment. • A creative project (40%) – a 5.1 fixed-media creative project where sound spatialisation is a key feature. Pieces will be 3:00 in length.
	Study Option **2**: • portfolio including elements of study option 1 assessment
	Study option **3**: • portfolio including elements of study option 1 assessment
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LEVEL 5 – INTERMEDIATE

Module Code	**MU5205**
Module Title	**Exploring Music Technology**
Credits	• Full Year: 8 (US) 15 (ECTS)
Level	5
Prerequisites	• Successful completion of level 4 (introductory) or equivalent study/practice of music technology
Suitability	Study Option 1 only.
Module Content	The module explores careers in the music industry for the music technology graduate and encourages students to continue to plan their own personal and professional development, encouraging independent thinking and the ability to consciously change, through shaping their own values and ambitions whilst developing a comprehensive understanding of the business of music. Students will study a range of topics including copyright law; contracts and legals; performing, publishing and synchronisation rights; publicity and social media; income streams for musicians including government, arts and crowd funding; publishing and the internet income; management, agents, promoters; live music events and merchandising; self-assessment and tax; and the role of unions. It also provides opportunities for students to expand their knowledge of the industrial and professional contexts for their practice, including interdisciplinary collaboration, and to further develop their employability skills**.** ➢ **Topics:** • How to research, identify and access career opportunities available to music graduates • Helping students identify and articulate their transferable skills in order to move beyond the music industry. • Project management principles and methodologies • Team-working and team co-ordination • Equality, Diversity, and Inclusion in the professional workplace

	• Communication skills, including how to give and receive feedback, professional language and presentation skills • Entrepreneurial thinking and practices • Digital platforms for professional profiles • Developing administrative, planning, marketing and other management tools including use of social media platforms to promote music (e.g. TikTok) • Using tools for self-assessment and professional development • Developing work experience through either a professional placement or a research project • Report and workplace journal writing • The live music industry – roles, logistics, legalities, health & safety, promotion of events
Teaching	lectures, seminars and practical workshops
Assessment	Study Option **1:** • A reflective account of a project brief submitted as a 1000-word written with relevant accompanying evidence (40%) • An employability portfolio which will include (60%): ○ 500-word Personal Development Plan ○ One page CV ○ Workplace Journal of 1000 words OR Research Project of 2000 words
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Module Code	**MU5201**
Module Title	**The Visconti Studio**
Credits	Full Year: 8 (US) 15 (ECTS)
Level	5
Prerequisites	Successful completion of introductory- level module such as MU4203 Recording and Engineering or equivalent.
Suitability	Study Option 1 only
Module Content	Building on recording and engineering skills developed in year 1, this module will focus on the aesthetics of recording and production from a range of genres, using the Visconti Studio live room, instrument and outboard collection.

	Students will research and critically engage with 20th Century recording and production legacies by attempting to recreate configurations and setups associated with 'signature' sounds of the past: Phil Spector, George Martin, Brian Wilson, Tony Visconti, Ken Scott, and more. Students will record and produce music in a variety of styles using a mixture of analogue and digital techniques, and will learn how to master to 1/4" tape.
Teaching	Weekly workshops
Assessment	Study Option **1:** • Research project: 1,500-word report on historical production techniques (40%) • Final digitally mixed and mastered project (60%)
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Module Code	**MU5302**
Module Title	**Audio Post-Production**
Credits	• Full Year: 8 (US) 15 (ECTS) • Single Semester: 4 (US) 7.5 (ECTS)
Level	5
Prerequisites	Prior intermediate experience using studio equipment and software.
Suitability	Study Options 1 *or 2 or* 3
Module Content	Study on this module will see students creating, editing and manipulating music and sound in a range of media post production scenarios, including trailers, TV, advertising, film and games. Students will develop practical skills in Foley and ADR recording, editing, design and creation of sound effects, as well as creating audio assets for game soundtracks and interactive media. Topics (whole year): • Audio editing for post-production • Sound design for trailers, games, film/TV • Foley & ADR • Atmospheres, Stingers, Reveals, Accents • Advertising music and sound • Documentary music and sound • Library music • Audio assets for interactive applications • Archiving

	• Industry standards, expectations • Collaborative creativity in visual media projects ➢ **Autumn Semester:** • Case Study: Why Hollywood? • The Foley studio • Intro to Foley - feet, moves, specifics • Spotting cut effects and Foley • Effects: hard, background, wild track • Working with effects • How to catalogue • Post Production Edit, SFX • Creature SFX • Workshop: horror, gore, impacts, punches • Sound, Music & The Brain • Uncanny sound design • Atonal Techniques, Shepard Tones & atmospheric cues • Retro sound design - cinematic synth wave ➢ **Spring Semester:** • ADR - why, techniques & practical workshop • Music and audio post-production • Trailers • Case study: horror and the electronic score • Creating themes for moving image: composition / musical sound design workshop • Library music & working with found music • Cinematic Scoring Techniques & Tips: Cue Sync, Structure • Original sound design in orchestration & arrangement • Perception, Emotion & Sonic Representation • Design an interactive music system: intro to FMOD • Interactive Sound & Music part 2 - Game engine
Teaching	Workshops
Assessment	Study Option **1:** • Sound Effects & Foley - students must perform and record Foley and create appropriate sound effects for a given scene (40%) • Collaborative Project: students work as part of a larger audio post-production team and fulfil a specialist role/s (60%)
	Study Option **2**: • Sound effects and Foley project (100%)

	Study Option **3:** • Collaborative Project: students work as part of a larger audio post-production team and fulfil a specialist role/s (60%)
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Module Code	**MU5204**
Module Title	**Performing with Technology**
Credits	• Full Year: 8 (US) 15 (ECTS) • Single Semester: 4 (US) 7.5 (ECTS)
Level	5
Prerequisites	Prior intermediate experience using live sound equipment and software.
Suitability	Study Options 1 or 2 or 3
Module Content	This module is for students who are interested in how technology applications and interfaces can enable innovative music performance. From performing with laptops, interfaces, rigs, triggers and turntables to live effects manipulation, electronics and video, this module will encourage diversity through a range of performance and collaborative practice. Students will examine case studies and a range of historical and contemporary performance practices. Topics: • Bespoke instrumental/vocal lessons to support the development of technical and interpretative skills for popular music performance • Supervised rehearsals to consider practical and aesthetic issues relating to performance practice • Workshops and presentations aimed at refining and developing a range of techniques for the delivery of level 5 creative work • Lectures on specific aspects of creative practice, performance preparation and presentation skills • Lectures covering historical and contemporary case studies ➢ **Autumn Semester:** • Multimedia performances • Live audio capture and manipulation • MIDI control/mapping/macros • Collaboration practices

	• Backing tracks in live performances • Using clips and audio in Ableton • Click tracks and headphone mixes • Extending instruments • Ableton live effects ➢ **Spring Semester:** • Ableton Live review • Synchronising multiple laptops • Video in Ableton • Max for Live • Stage lighting tutorial • Extending instruments • Djing practice • Principles of sound reinforcement • Circuits, sensors and remote control • Outboard pedals and effects
Teaching	Studio workshops
Assessment	Study Option **1:** • public performance (approx. 15 minutes duration) held towards the end of the academic year (75%) • 2,000-word report on multi-media performance (25%)
	Study Option **2**: • Performance - around 7-12 minutes in duration (75%) • 1,000-word report on multi-media performance (25%)
	Study Option **3**: • Elements of study option 1 assessment
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LEVEL 6 – ADVANCED

Module Code:	**MU6307**

Module Title:	**Live Sound and Event Management**
Credits:	• Full Year: 8 (US) 15 (ECTS) • Single Semester: 4 (US) 7.5 (ECTS)
Level:	6
Prerequisites:	Prior advanced experience using live sound equipment
Suitability	Study Options 1 or 2 or 3
Module Content:	This module provides hands on experience in live sound reinforcement and event management, covering monitoring, lighting and projection, stage design, professional conventions, working with performers and promoters, and logistics. You will train on live mixers and gain experience engineering live sound at events held in a variety of external venues. You will put on shows and organise a small tour, working with local venues and promoters. There will be opportunities to work with local partners in Kingston where possible. ➢ **Topics:** • Managing live sound (microphones, mixing desks, public address systems) • Acoustic properties of live spaces • Monitoring – wedges, drum and side fills, in-ears, splits, the monitor desk • Mixing strategies (dynamic processing, equalisation, effects) • Event team roles – including Front of House and monitor engineers, backline technicians, riggers, stage manager, tour manager, lighting, visuals, promoters, merchandise • Team management skills • Delegation skills • Organisational skills • Time management skills • Production design – including staging, lighting, projection and special effects • Event management and health and safety • Location recording • Event and tour logistics – planning, band, crew, backline, production and merchandise transport, specialist freight, international travel, carnets and visas • Budgeting • Working within live sound team • Reflective writing skills • Putting together the live event portfolio
Teaching:	1-hour lead lecture before a 2-hour long practical workshop or seminar

Assessment:	Study Option **1:** • Online live sound test (35%) • portfolio of live sound events comprising of planning materials, budgets, communications, footage and audio from the events and a 2000 word critical/reflective account of the different live sound experiences (65%)
	Study Option **2:** • Stage live event and document its setup and performance, including 750-word reflection (100%)
	Study Option **3:** • Part of study option 1 assessment
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Module Code:	**MU6311**
Module Title:	**Advanced Production**
Credits:	8 (US) 15 (ECTS)
Level:	6
Prerequisites:	Prior advanced experience using live sound equipment
Suitability	Study Option 1 only

Module Content:	As part of this module, students will develop a comprehensive theoretical and practical grounding in professional recording, mixing and mastering practices. The module will be taught in the Visconti Studio, with a mixture of lecture demonstrations and practical workshops during which students will learn to record, mix and mastering and develop a comprehensive understanding behind the science, technology and traditions that underpin these practices. ➢ **Topics:** • Analogue approaches to sound recording • Analogue vs. digital – the pros and cons • How to explore the sonic possibilities offered by recording spaces • Advanced recording techniques • Refining, preparing and editing a multitrack session for mixing • Digital mixing • Analogue mixing • Professional use of outboard equipment • Industry standard client mixes • Metering terminology • Approaches to audio mastering • Mastering for different formats
Teaching:	Lectures, seminars and small group practical workshops
Assessment:	Study Option **1:** • Original individual production (including recording and mixing) of a track. Minimum duration of 3'30'' (50%) • A portfolio of three separate Masters of the same track (50%)
Last updated:	**11/04/24** MG/PJW