

COURSE DESCRIPTIONS BACHELOR ART OF SOUND 2019 - 2020

BACHELOR 1

ARTISTIC DEVELOPMENT

Course title:	Recording 1
Osiris course code:	KC-AS-REC1
Course content:	<p>The first two years of the four-year Recording course are mandatory for all students. In the third and fourth years the course is compulsory for students who have chosen Recording as their specialisation; for the other students it is an elective course as part of the minor in Recording.</p> <p>In the Recording course the student receives practical instruction in the professional recording process, whereby a musical event is recorded as it occurred in space and time in such a way that on reproduction of this recording the sound and musical experience of the original event are approached as closely as possible. These processes are typical of recordings in the classical and jazz repertoire. The student develops an audio-technical vision that corresponds with the relevant musical given.</p> <p>The student learns to use the common stereo main system techniques AB, XY, MS, ORTF and OHNO in practice. The sound properties of the different systems are analysed using the parameters of spatiality, timbre and source localisation as the main assessment criteria. The influence on the sound of the positioning of the main system in large and small spaces and in relation to the source is studied in order to be able to choose the correct main system in varying acoustical and musical circumstances. The student learns how to use support microphones for soloists, instruments and instrument groups in small and large settings.</p> <p>The student learns to work with various DAW platforms, with the emphasis on:</p> <ul style="list-style-type: none"> • the organisation of multitrack projects; • creating a structural set-up for a multitrack project; • editing musical material performed by small and large ensembles; • creating a musical balance that corresponds with the musical event; • keeping complete and accurate records of the project. <p>Instrument clinics and ensemble clinics teach the students in a very direct way about the source. Various common instrument groups are studied in a practical fashion, with a focus on sound, historical development, the mechanics of the instruments and the function of the instrument and the playing techniques used in different musical styles. Various forms of ensemble common in the classical, contemporary or jazz repertoire are closely studied in a practical manner, with the focus on sound, historical development, repertoire and the usual arrangements on the stage.</p> <p>During the lessons professional recording situations of varying complexity are simulated. The student follows the entire recording process in a team under the</p>

	<p>teacher's supervision. Elements of this process are preparing a score, drafting a recording plan, holding the recording session, keeping administrative records of the project, communicating with musicians and other stakeholders, editing the recording, mixing the recording and delivering the end product within a prescribed deadline.</p> <p>During the first three years of the course a distinction is made between making recordings in large spaces (concert hall recording) and making recordings in small spaces (studio recording). Depending on the size of the group, the teacher may decide to divide the students into smaller groups during the lesson if that will benefit the teaching process; the student will then have less contact time, but it will be more intensive.</p>
Objectives:	<p>At the completion of this course, the student:</p> <ul style="list-style-type: none"> • has a basic knowledge of microphone types and their applications in music recording; • has a basic knowledge of stereo main systems and their applications in music recording; • is able to make the right choice of a microphone type and microphone position for a given acoustical source at a basic level; • is able to make the right choice for a stereo main system in given acoustical circumstances at a basic level; • is able to work with DAW platforms at a basic level; • has basic mixing and editing skills; • has basic communication skills in a music recording situation.
Type of course:	Compulsory
Level:	B1
Duration:	14 lessons à 02:00
Prior qualifications/prerequisites:	Studio Introduction
Teachers:	Daan van Aalst Micha de Kanter
Credits:	2
Literature:	-
Work form:	Group lesson
Assessment:	<p>As a rule, the Art of Sound I-II transitional exam takes place in June (the exam lasts 60 minutes). The I – II transitional exam has two objectives:</p> <ul style="list-style-type: none"> • to test sound awareness and the ability to communicate about this; • to test technical skills and the control of the workflow in the mixing process. <p>The exam consists of two parts:</p> <ul style="list-style-type: none"> • Performance of a mixdown of a simple layered multitrack recording with isolated sources, including the technical realisation. • Performance of a mixdown of a simple acoustic multitrack recording with combined sources, including the technical realisation. <p>In both parts, the student will perform the mixdown live before a committee and will have an opportunity to explain the reasons for his/her choices in the work process. The materials will be provided by the programme in the form of multitrack</p>

	<p>audio files.</p> <p>The Art of Sound I-II transitional exam forms the joint conclusion of the courses Recording 1, Producing 1 and Sound Reinforcement 1. The exam is prepared for in the courses Recording 1, Producing 1, Sound Reinforcement 1, Listening Skills and Analog Studio Practice.</p> <p>The student notifies the head of the department of his/her choice of major specialisation (Recording, Producing or Sound Reinforcement) before 1 April in the course year. That choice is discussed with the student and the student receives feedback on his/her choice during the transitional exam.</p> <p>A minimum attendance of 80% is required.</p>
Grading system:	Numeric
Language:	English
Schedule, time, venue:	See Asimut schedule
Information:	Paul Jeukendrup – Head of Art of Sound Department (p.jeukendrup@koncon.nl)

Course title:	Producing 1
Osiris course code:	KC-AS-PRD1
Course content:	<p>The first two years of the four-year course in Producing are mandatory for all students. In the third and fourth years the course is compulsory for students who have chosen Producing as their specialisation; for the other students the course is an elective in the minor in Producing.</p> <p>The Producing course gives the student a practical grounding in the professional music production process, in which existing or pre-recorded material has to be combined and edited using technology to produce an end result that on reproduction has not previously taken place as such in terms of space and time. These processes are typical of music productions in the contemporary popular repertoire. The student develops an audio-technical vision that corresponds with the relevant musical given.</p> <p>The student learns various uses of microphones that are customary in music production, whereby maximum phase coherence and/or source separation is achieved by means of a combination of microphone placement, directional characteristic and acoustic solutions.</p> <p>In the application of music production techniques a distinction is made between the creative and the supporting role that technology plays in music production and the function of common production techniques in the arrangement is studied. The student learns music production techniques such as editing, mixing, spectral processing, dynamic processing, spatial processing, time and pitch processing, (mix) automation, midi & audio programming, applied sound synthesis, sampling, re-amping and sound replacement.</p> <p>The student learns to work in both an analog and a digital music production environment, with the emphasis on:</p> <ul style="list-style-type: none"> • the organisation of multitrack projects; • creating a structural set-up for a multitrack project; • combining and editing musical material in a layered structure into a new arrangement; • creating a musical balance that corresponds with the musical event; • keeping complete and accurate administrative records of the project. <p>Instrument clinics and ensemble clinics teach the students in a very direct way about the source. Various common instrument groups are studied in a practical fashion, with a focus on sound, historical development, the mechanics of the instruments and the function of the instrument and the playing techniques used in different musical styles and the use of different microphone techniques in specific musical situations.</p> <p>During the lessons professional music production situations of varying complexity are simulated. The student follows the entire music production process as part of a team under the teacher's supervision. Elements of this process are identifying and compiling the musical material, drafting a music production plan, conducting recording sessions, keeping administrative records of the project and</p>

	<p>communicating with musicians and other stakeholders, producing the arrangement (including combining and editing the musical material), producing the mix and delivering the end product within a prescribed deadline.</p> <p>Depending on the size of the group, the teacher may decide to divide the students into smaller groups during the lesson if that will benefit the teaching process; the student will then have less contact time, but it will be more intensive.</p>
Objectives:	<p>At the completion of this course, the student:</p> <ul style="list-style-type: none"> • has basic knowledge about microphone applications in music production; • has basic knowledge about music production techniques as applied in music production; • is able to work in an analog and a digital music production environment at a basic level; • has basic editing and mixing skills; • is able to make a correct choice for music production techniques in a given musical situation at a basic level; • has basic arranging skills as applied in a music production situation; • has basic communication skills in a music production situation.
Type of course:	Compulsory
Level:	B1
Duration:	14 lessons à 02:00
Prior qualifications/prerequisites:	Studio Introduction
Teachers:	Maurice Bom
Credits:	2
Literature:	-
Work form:	Group lesson
Assessment:	<p>As a rule, the Art of Sound I-II transitional exam takes place in June (the exam lasts 60 minutes). The I – II transitional exam has two objectives:</p> <ul style="list-style-type: none"> • to test sound awareness; • to test technical skills. <p>The exam consists of two parts:</p> <ul style="list-style-type: none"> • Performance of a mixdown of a simple layered multitrack recording with isolated sources, including the technical realisation. • Performance of a mixdown of a simple acoustic multitrack recording with combined sources, including the technical realisation. <p>In both parts, the student will perform the mixdown live before a committee and will have an opportunity to explain the reasons for his/her choices in the work process. The materials will be provided by the programme in the form of multitrack audio files.</p> <p>The Art of Sound I-II transitional exam forms the joint conclusion of the courses Recording 1, Producing 1 and Sound Reinforcement 1. The exam is prepared for in the courses Recording 1, Producing 1, Sound Reinforcement 1, Listening Skills and Analog Studio Practice.</p> <p>The student notifies the head of the department of his/her choice of major</p>

	<p>specialisation (Recording, Producing or Sound Reinforcement) before 1 April in the course year. That choice is discussed with the student and the student receives feedback on his/her choice during the transitional exam.</p> <p>A minimum attendance of 80% is required.</p>
Grading system:	Numeric
Language:	English
Schedule, time, venue:	See Asimut schedule
Information:	Paul Jeukendrup – Head of Art of Sound Department (p.jeukendrup@koncon.nl)

Course title:	Sound Reinforcement 1
Osiris course code:	KC-AS-SR1
Course content:	<p>The first two years of the four-year course in Sound Reinforcement are mandatory for all students. In the third and fourth year the course is compulsory for students who have chosen Sound Reinforcement as their specialisation; for the other students the course is an elective as part of the minor in Sound Reinforcement.</p> <p>The Sound Reinforcement course gives the student a practical grounding in the professional sound reinforcement process when, for musical and/or acoustic reasons, the sound at a musical event has to be adjusted with the help of technology. Characteristic of this situation is that the reproduction occurs simultaneously with and in the same space as the musical action. These situations arise at concert recitals and theatre performances in various musical styles and acoustic conditions. The student develops an audio-technical vision that corresponds with the relevant musical given.</p> <p>The timbral properties of different loudspeaker setups are analysed in spaces with different acoustic and architectural properties. The influence of a loudspeaker setup on spatiality, timbre and source localisation are studied in order to learn how to make the correct choice of loudspeaker arrangement under various musical and acoustic conditions. A distinction is made between single and composite loudspeaker systems, using both point source and line source subsystems.</p> <p>The student learns about various customary microphone applications for sound reinforcement, with a distinction being made between overhead miking, close miking and clip-on miking. The impact of each application in terms of timbre, cross-talk and feedback are studied in order to learn the correct application to choose in different acoustic and musical circumstances. The student learns to work with both wireless and wired technologies.</p> <p>The student learns to work with analog and digital mixing platforms, with the emphasis on:</p> <ul style="list-style-type: none"> • the organisation of the signal distribution in a mixing platform; • creating a functional connection structure between source, mixing platform and destination; • actively operating the mixing platform, with technical choices being based on considerations of a musical nature; • creating a musical balance that corresponds with the musical event; • keeping complete accurate administrative records of the project. <p>Professional sound reinforcement situations of varying complexity are simulated during the lessons. The student follows the entire amplification process as part of a team under the teacher's supervision. This process includes studying the artistic event, designing and realising a loudspeaker and microphone setup that corresponds with the musical event, performing a sound check, creating an aesthetically and functionally correct sound balance in the hall, creating a functional stage sound, keeping records of the project and communicating with musicians and other stakeholders. The student learns to work safely and under</p>

	<p>time pressure.</p> <p>Depending on the size of the group, the teacher may decide to divide the students into smaller groups during the lesson if that will benefit the teaching process; the student will then have less contact time, but it will be more intensive.</p>
Objectives:	<p>At the completion of this course, the student:</p> <ul style="list-style-type: none"> • has a basic knowledge of microphone types and their applications in sound reinforcement; • has a basic knowledge of loudspeaker systems and their applications in sound reinforcement; • is able to make a correct choice of a loudspeaker system and its setup for a given artistic event in a given acoustical situation at a basic level; • is able to make a correct choice of a microphone type and its positioning for a given source in a given acoustical situation at a basic level; • is able to work with analog and digital mixing platforms at a basic level; • is able to realise a functioning mobile sound reinforcement system of low complexity within certain time constraints; • has basic mixing and monitor mixing skills; • has basic communication skills in a sound reinforcement situation.
Type of course:	Compulsory
Level:	B1
Duration:	14 lessons à 02:00
Prior qualifications/prerequisites:	Studio Introduction
Teachers:	Jos Diergaarde
Credits:	2
Literature:	-
Work form:	Group lesson
Assessment:	<p>As a rule, the Art of Sound I-II transitional exam takes place in June (the exam lasts 60 minutes). The I – II transitional exam has two objectives:</p> <ul style="list-style-type: none"> • to test sound awareness; • to test technical skills. <p>The exam consists of two parts:</p> <ul style="list-style-type: none"> • Performance of a mixdown of a simple layered multitrack recording with isolated sources, including the technical realisation. • Performance of a mixdown of a simple acoustic multitrack recording with combined sources, including the technical realisation. <p>In both parts, the student will perform the mixdown live before a committee and will have an opportunity to explain the reasons for his/her choices in the work process. The materials will be provided by the programme in the form of multitrack audio files.</p> <p>The Art of Sound I-II transitional exam forms the joint conclusion of the courses Recording 1, Producing 1 and Sound Reinforcement 1. The exam is prepared for in the courses Recording 1, Producing 1, Sound Reinforcement 1, Listening Skills and Analog Studio Practice.</p>

	<p>The student notifies the head of the department of his/her choice of major specialisation (Recording, Producing or Sound Reinforcement) before 1 April in the course year. That choice is discussed with the student and the student receives feedback on his/her choice during the transitional exam.</p> <p>A minimum attendance of 80% is required.</p>
Grading system:	Numeric
Language:	English
Schedule, time, venue:	See Asimut schedule
Information:	Paul Jeukendrup – Head of Art of Sound Department (p.jeukendrup@koncon.nl)

Course title:	Analog Studio Practice
Osiris course code:	KC-AS-ASP
Course content:	<p>The quick-start guide to recording in general, and acoustical studio recording in particular. Guided by the arrangement needs of a simple pop song, each step in the making of a layered recording shows, on a basic level, one of a number of subdivisions in standard studio technology, focussing on the practical rather than the contextual theories.</p> <p>During this course students explore subjects such as room acoustics, microphone technique, signal flow (mixer, outboard, patchbay), and analog signal processing. During each lesson students carry out numerous exercises in mixing and gain structuring and are encouraged to use their creativity in the realms of music and sound. In this introductory overview, the limitations of the 24-track analog recording medium stimulates students to first develop listening and communication skills, saving the progress towards technical proficiency for a later stage.</p>
Objectives:	<p>At the completion of this course, the student:</p> <ul style="list-style-type: none"> • has studied and experienced the basic skills involved in understanding the relationship between technology and music in the music recording process; • has a basic knowledge of room acoustics, microphone techniques, signal flow and analog signal processing and is able to put this knowledge into practice in a simple music recording process; • has sufficient knowledge and skills to operate the studio autonomously with basic technical proficiency, while maintaining safe and purposeful conditions.
Type of course:	Compulsory
Level:	B1
Duration:	10 lessons à 02:00
Prior qualifications/prerequisites:	Audio Basics
Teachers:	Maurice Bom
Credits:	1
Literature:	Mixer flowchart, hand-outs, equipment reference guides.
Work form:	Group lesson
Assessment:	<p>One practical assignment in a small team (2 or 3 students), while writing a concise report about the assignment individually. The assignment is to make a layered multitrack recording of a simple song. All team members are required to perform at least one musical part of the arrangement, while the recording tasks are to be divided equally between the students. The team results will be presented to the whole group as a mixdown exercise in the first lesson of the course Producing 1. Neither the quality of the work nor the mixdown will be assessed; it is the process that counts, as well as the responses of the fellow students to the presentation. A minimum attendance of 80% is required.</p>
Grading system:	Pass/Fail
Language:	English
Schedule, time, venue:	See Asimut schedule
Information:	Paul Jeukendrup – Head of Art of Sound Department (p.jeukendrup@koncon.nl)

Course title:	Instrument 1
Osiris course code:	KC-AS-B11
Course content:	<p>The student follows the Instrument course throughout the four years of the programme. The aim of the instrumental or vocal lessons is to support the development of the student's playing or singing skills and musicality in the main subject. The course assists the music technologist in assessing and communicating with musicians about the artistic and technical aspects of a performance. It covers aspects such as musical interpretation, quality of performance, degree of difficulty, tempo, purity and, in the case of jazz / pop, improvisational skills.</p> <p>At the time of registration for the entrance exam, the student has already made a choice for either classical or jazz / pop. In both streams, the student practices the technical skills by playing etudes and exercises.</p> <p>Although the aim is to achieve the highest possible technical standard, the level of progress is more important than the absolute technical level. For the two streams, musical development is defined as follows:</p> <p>Classical: The student plays a varied and multifaceted repertoire in which compositions from different style periods of Western music history are represented. The student learns to interpret and perform the various styles.</p> <p>Jazz / Pop: The student plays a varied and multifaceted repertoire in which improvisations and arrangements from various streams in Western jazz and/or pop music are represented. The student learns to improvise in the various streams.</p>
Objectives:	<p>At the completion of this course, the student:</p> <ul style="list-style-type: none"> • is able to play an instrument or to sing at a satisfactory musical and technical level; • displays progress in musical and technical terms, (a potential for) musical growth, musical diversity and (for jazz and pop) the ability to improvise; • classical: is able to interpret and perform a diverse and multifaceted repertoire in which compositions from various style periods of Western music history are represented at a basic level; • jazz / pop: is able to interpret and perform a diverse and multifaceted repertoire in which improvisations and arrangements from various streams of Western jazz and/or pop music are represented at a basic level.
Type of course:	Compulsory
Level:	B1
Duration:	34 lessons à 00:40
Prior qualifications/prerequisites:	-
Teachers:	Stefan Schmid Ruben van Roon Instrumental and Vocal Teachers
Credits:	9

Literature:	Sheet music
Work form:	Individual lesson
Assessment:	<p>As a rule, the transitional exam in Instrument 1 takes place in May of the first year of the course (the exam lasts 20 minutes).</p> <p>The assessment criteria for the Instrument 1 transitional exam are:</p> <ul style="list-style-type: none"> • musical development; • instrumental/vocal technical development; • development of ability to work independently; • for jazz / pop: ability to improvise. <p>The Instrument 1 (Classical) transitional exam consists of the live performance in front of a committee of a programme comprising one or more etudes, together with three assigned pieces from three different style periods. The student may bring an accompanist to the exam. The course does not provide accompanists.</p> <p>The Instrument 1 (jazz, pop) transitional exam consists of the live performance in front of a committee of a programme comprising one or more etudes, together with three assigned pieces that differ in style and tempo. The student must arrange his own accompanying musicians and the necessary instruments/ backline. The course does not provide accompanists.</p>
Grading system:	Numeric
Language:	English
Schedule, time, venue:	Schedule to be agreed upon with the teacher
Information:	Paul Jeukendrup – Head of Art of Sound Department (p.jeukendrup@koncon.nl)

Course title:	Listening Skills 1
Osiris course code:	KC-AS-LS1
Course content:	<p>In the three-year course in Listening Skills the student is trained to listen to and speak accurately about sound specifically as it applies to the creation, assessment, composition and editing of music productions. A distinction is made in that context between Critical Listening Skills and Analytical Listening Skills:</p> <p>Critical Listening Skills are defined as the ability to listen technically, such as:</p> <ul style="list-style-type: none"> • recognising frequencies (expressed in Hertz); • recognising (resonance) frequency ranges (expressed in Hertz); • recognising loudness (expressed in dB SPL); • recognising positioning in space by means of differences in intensity; • recognising positioning in space by means of time differences; • recognising spatiality (properties of natural or synthetic acoustics); • recognising different types of distortion (linear and non-linear distortion). <p>Critical Listening Skills are trained with technical examples of sounds independent of a musical context.</p> <p>Analytical Listening Skills are defined as the capacity to listen analytically, such as:</p> <ul style="list-style-type: none"> • recognising the pitches of the various elements present in a complex signal (music production); • recognising the spectral content of the various elements present in a complex signal (music production); • recognising the relative sound levels of the various elements present in a complex signal (music production); • recognising the spatial properties of the various elements present in a complex signal (music production); • establishing connections between the musical context of a complex signal and all the aforementioned parameters on the basis of an analysis of the form of the musical material. <p>Analytical Listening Skills are trained with examples of musical sounds. Both existing audio materials and material produced by the student in the main subject lessons are analysed and discussed by the group during the lessons. Evaluation forms distributed during the lesson are used for this purpose.</p> <p>The acoustic, electro-acoustic, and psycho-acoustic aspects of the listening environment are dealt with by means of experimenting with and assessing various monitor set-ups and listening positions in relation to the acoustic and architectural properties of the space.</p>
Objectives:	<p>At the completion of this course, the student:</p> <ul style="list-style-type: none"> • is able to recognise frequencies with a resolution of 1 octave; • is able to recognise (resonance) frequency ranges with a resolution of 1 octave; • is able to recognise loudness level differences with a resolution of 12 dB SPL; • is able to evaluate spatiality (natural or synthetic) in a complex audio signal at a basic level; • is able to recognise and evaluate several kinds of linear and non-linear distortion in recorded musical material due to technical imperfections during the recording or reproduction process at a basic level; • is able to assess recorded musical material in terms of spatial image, ambience, frequency response, musical balance, dynamic range, artistic merit and technical

	merit at a basic level; • is able to assess quality aspects of individual components or storage media as typically used in the audio industry by ear at a basic level.
Type of course:	Compulsory
Level:	B1
Duration:	12 lessons à 02:00
Prior qualifications/prerequisites:	Audio Basics
Teachers:	Matthijs Ruijter
Credits:	2
Literature:	William Moylan - Understanding and Crafting the Mix Jason Corey - Critical Listening Skills
Work form:	Group lesson
Assessment:	There are two written tests during the course period. Both tests have equal weight. A minimum attendance of 80% is required.
Grading system:	Numeric
Language:	English
Schedule, time, venue:	See Asimut schedule
Information:	Paul Jeukendrup – Head of Art of Sound Department (p.jeukendrup@koncon.nl)

Course title:	Piano Practical
Osiris course code:	KC-AS-PP
Course content:	<p>In this course, students learn to play the piano (or continue their learning process). In weekly individual lessons, students develop (basic) piano skills, learn more about different musical styles and basic harmony at the piano, and learn how to accompany their own melodic instrument. These skills support students' main subject, as well as their possible (future) teaching activities. The skills support the music technologist especially in score reading, hearing and recognizing harmonies and assessing and evaluating harmonic arrangements. The course is compulsory for all non-keyboard players. Keyboard players are exempt from this course.</p> <p>Class protocol</p> <p>Beginning of the school year: once you have received your timetable get in touch with the piano teacher to whom you have been allocated within a week. Call or send an email. Even if you are unable to start straightaway you should nevertheless report to your teacher so that he or she knows you plan to come. Students failing to report to their piano teacher before 1 October run the risk of only being able to start their classes a year later.</p> <p>Attendance: there are 34 classes a year. To sit the exam you must have an attendance of 80%, in other words 28 classes. Exceptions are only made in the case of an injury or long term illness. Attendance lists are kept. NB Classes can only be missed for a good reason and with advance notice.</p> <p>Notification: let your own piano teacher know if you are unable to attend. Do not wait until the class begins but notify the teacher as soon as you know you cannot make it. Try and swap with someone else. If you are ill on a day when there is a class, phone or text teachers so that they are not kept waiting in vain and can then adjust their timetable.</p>
Objectives:	<p>At the completion of this course, the student:</p> <ul style="list-style-type: none"> • has reached a basic level of playing the piano; • is able to play a simple composition a prima vista; • is able to accompany a melodic instrument in various styles and at a basic level; • has developed insight into harmony and harmonisation and is able to implement this.
Type of course:	Compulsory
Level:	B1
Duration:	n/a
Prior qualifications/prerequisites:	-
Teachers:	n/a
Credits:	pm
Literature:	-
Work form:	Individual lesson

Assessment:

Compulsory attendance: 80%. Please read the 'protocol secondary subject piano' below.

The exam takes place in June and consists of two parts with several elements:

A:

- The student is required to play a solo piece at his own level, taking into consideration musicality, correctness and style;
- The student is required to accompany a fellow student, preferably in a composition of the students' main melodic instrument;

The solo piece and accompaniment should be in two contrasting styles.

B:

- a prima vista playing;
- transpose;
- harmonic reduction/harmonisation of a melody;
- improvisation/variation.

At the exam, two assignments are chosen. The student is allowed to choose between assignment 1 or 2, and 3 or 4. Assignments 3 and 4 can be prepared in advance, assignments 1 and 2 are assigned on the spot.

Total duration of the exam: 15 minutes.

Examination protocol:

Exemption

Exemption is only granted after a test of proficiency. Report your wish for exemption at the first class with the teacher. You will then be asked to play for a committee of three piano teachers. If you play well enough to pass the final examination with ease you will be given an exemption.

You may possibly be granted exemption for part of the class but will be required to do the other parts in the final examination.

Examination

The final examination is in June. You will receive an invitation via the konconmail to sit the examination a month before the date at the latest. If you cannot sit the examination on the given date you have a week after the date of the notice to fix another date with the chair of the examinations committee Ms Rixt van der Kooij, r.vanderkooij@koncon.nl.

Exchange of examination times is allowed within the class of your own piano teacher. You can consult the piano teacher and the teacher arranges this with the chair of the examinations committee. Make sure you are on time. At least 15 minutes beforehand. There is a practice room available.

If you are ill on the day of the examination or you cannot sit the examination for another reason, notify this as soon as possible to your own piano teacher. The teacher passes this on to the chair of the examination committee.

	<p>Resits</p> <p>If you fail your final examination an estimate is made of the time you will need to attain the required standard. The resit can take place in September so that you will nevertheless be able to pass the first year (propaedeutic year). If more time is required a resit is possible in December or a year later in June. The committee plans the resits.</p> <p>NB If you are not allowed to take an examination because you have failed to meet the attendance requirement (absent for more than 20% of classes), the new examination is considered to be a resit.</p> <p>NB If you fail an examination because your initial level was too low but you have nevertheless put in the requisite effort this is noted at your examination and the next examination will then count as the first examination.</p> <p>The maximum length of time allowed for the one-year Piano minor is two years.</p> <p>NB You need a 'pass' in this subject to pass the first year (propaedeutic year).</p> <p>NB Every year a limited number of places is available for highly-motivated students who want to do an extra year of piano classes. Students should let teachers know in good time that they wish to do this and how they would like to use this year (teachers will inquire in good time) and the teachers will pass this on to Rixt van der Kooij, who plans all the examinations. At the time of the examinations of this group of students, selection of those wishing to do an extra year will take place on the basis of the standard of (piano) playing.</p>
Grading system:	Qualifying results
Language:	English
Schedule, time, venue:	Schedule to be agreed upon with the teacher
Information:	Rixt van der Kooy (R.vanderKooij@koncon.nl)

Course title:	Projects B1
Osiris course code:	KC-AS-PRB1
Course content:	<p>Throughout the entire course period students will carry out study projects. A project is work performed independently by a student, alone or in a team, that shows strong similarities with the work process in the regular professional practice, for example recording projects, music production projects or sound reinforcement projects. The aim of these projects is to prepare in a practical and very direct way for professional practice by learning professional skills such as preparing a timetable, working under pressure, functioning in a team and communicating in an artistic environment.</p> <p>At the beginning of the course, projects are usually assigned to the student and the details of the project are determined by the main subject teacher and/or project coordinator. As the course progresses, the student will be given more and more freedom, first in choosing projects and later also in working out the details of the projects. In the fourth year of the course, the emphasis will be on projects that are chosen and performed entirely independently.</p> <p>A project must be carefully planned and documented. The physical evidence of the projects is kept in the student's portfolio.</p> <p>The project coordinator supervises the student in the choice of projects and awards the relevant credit points. Factors in his decision are the degree of difficulty and the extensiveness of the project and the student's role in the project. The project coordinator monitors deadlines and, if necessary, addresses the student for not meeting these deadlines.</p> <p>The project coordinator does not personally supervise the projects. If active supervision of a project is needed (as in the case of a question about quality), the project coordinator can designate a supervisor.</p> <p>The main subject teacher (individual main subject) may provide the student with professional feedback on the basis of and by means of the portfolio. The student has to request the feedback, it is not initiated by the main subject teacher. The student may not claim any time from the individual main subject lessons for the teacher's supervision of a project. If active supervision of a project is needed (as in the case of a question about quality), the project coordinator can designate a supervisor.</p> <p>Every project will be carried out by one or more students, including a team leader. Where applicable, the team leader will qualify for extra credit points for his work. The course can stipulate requirements for the number of projects in which the student has to act as a team leader. The tasks of the team leader are as follows:</p> <ul style="list-style-type: none"> • principal responsibility for and contact person for the entire project; • assembling the project team; • submitting a project application to the project coordinator; • writing the project report and submitting the report to the project coordinator within a month of completion of the project; • providing the department, in the person of the project coordinator, with the final

	<p>results of the project (as a rule in the form of audio) within one month of the completion of the project;</p> <ul style="list-style-type: none"> • in the case of a project initiated by the student him/herself, the team leader will be the initiator of the project. <p>The student is in principle obliged to attend every lesson. However, it is inevitable that some lessons will be missed because of participation in a project. Students are personally responsible for minimising their absence. If projects coincide with exams or tests, exams and tests take priority. If attendance at lessons is an assessment criterion for a course, the assessment criteria set out in the in the curriculum apply; participation in a project is not an alternative to this assessment criterion. Students must take this into account in their planning. When planning projects, students must take account of the fact that obligations regarding the course always take priority over the obligations relating to projects. That applies in particular for attendance at exams and tests.</p> <p>With a commitment to participate in a project, a student undertakes to actually carry out the project. If, because of unforeseen circumstances or force majeure, there is a valid reason for not taking part in the project, the student concerned must arrange an adequate substitute so that the project as a whole can continue.</p>
Objectives:	<p>At the completion of this course, the student:</p> <ul style="list-style-type: none"> • is able to work independently at a basic level in a professional environment; • has acquired practical experience with working in a team at a basic level; • is able to plan and to organize at a basic level; • has basic production skills; • is able to communicate at a basic level in a (semi-) professional environment.
Type of course:	Compulsory
Level:	B1
Duration:	n/a
Prior qualifications/prerequisites:	-
Teachers:	n/a
Credits:	2
Literature:	n/a
Work form:	n/a
Assessment:	<p>In order to qualify for credit points, for every project an application must be submitted to the project coordinator before the project is carried out using a project application form (available on the intranet). A single project application form has to be submitted for each project containing the names and tasks of all the participating students and a timetable that is as accurate as possible. A project application must also be submitted for projects that are initiated or assigned by the department. The project coordinator determines the number of credit points (EC) that will be awarded on completion of the project, in consultation with the main subject teacher. Factors that will be taken into account are the educational value of the project for the individual student and the time invested by the student. The number of ECs awarded on completion of the project will be notified to the student by the project coordinator within two weeks of the application.</p>

	<p>A report has to be written for each project, which will be inserted in the portfolios of all the participating students. The report must include at least:</p> <ul style="list-style-type: none"> • Substantive information, documented in such a way that a CD booklet or a programme can be compiled from it; • A brief description of how the project progressed; • A brief evaluation of the project, including reflection; • Technical information, documented in such a way that the project can be reproduced by a third party on the basis of that documentation. <p>The project report must be included in the student's e-portfolio and submitted to the project coordinator for assessment within one month of completion of the project.</p> <p>If there is an end result recorded in audio form, if necessary in combination with a video, this recorded end result must be inserted in the student's e-portfolio, accompanied by accurate and complete documentation, within one month of completion of the project.</p> <p>A project qualifies for the predetermined number of ECs if the following criteria are met:</p> <ul style="list-style-type: none"> • The project is completed within a reasonable period. • The report of the project is present in the relevant student's e-portfolio and has been submitted to the project coordinator within one month of completion of the project, and latest before July 1st of the current study year. • The recorded end result (as a rule in the form of audio) has been made available to the project coordinator in the e-portfolio within one month of completion of the project, and latest before July 1st of the current study year.
Grading system:	Pass/Fail
Language:	English
Schedule, time, venue:	n/a
Information:	Paul Jeukendrup – Head of Art of Sound Department (p.jeukendrup@koncon.nl)

Course title:	Studio Introduction
Osiris course code:	KC-AS-SI
Course content:	Studio Introduction is an intensive one-week course in which the student is introduced to the programme's technical facilities. The student learns to work responsibly and independently with the available equipment. The emphasis is on learning to work safely, carefully and professionally. The introductions are tailored to the department's three specialisations, Recording, Producing and Sound Reinforcement, and cover the elements Audio Network, Studio B, Control Room, PA and Portable Set.
Objectives:	At the completion of this course, the student: <ul style="list-style-type: none"> • has a professional approach that follows the generally applicable principles of studio discipline; • masters the technical studio concept including signal flow and monitoring; • is able to carry out small projects independently.
Type of course:	Compulsory
Level:	B1
Duration:	10 lessons à 03:00
Prior qualifications/prerequisites:	Analog Studio Practice
Teachers:	Daan van Aalst Jos Diergaarde Paul Jeukendrup Micha de Kanter
Credits:	2
Literature:	Hand outs from teacher
Work form:	Group lesson
Assessment:	For each module of this course there is a concluding practical assignment that will be carried out in the final lesson of the module. In total there are five assignments (Audio Network, Studio B, Control Room, PA, Portable Set), which are carried out in groups with the teacher assigning specific tasks to each student. The assignment consists of realising the correct connections between the parts of a sound system so that the system can be used for a recording and/or reproduction situation, within a prescribed deadline and in accordance with correct and safe procedures. All assignments have to be completed with a pass grade.
Grading system:	Pass/Fail
Language:	English
Schedule, time, venue:	See Asimut schedule
Information:	Paul Jeukendrup – Head of Art of Sound Department (p.jeukendrup@koncon.nl)

BACHELOR 1**PROFESSIONAL PREPARATION**

Course title:	First Year Festival
Osiris course code:	KC-AL-FYF
Course content:	<p>The First Year Festival (FYF) has two main goals:</p> <ol style="list-style-type: none"> 1. It helps you build a broad network of fellow students; 2. Making a smooth start at the Royal Conservatoire. <p>The First Year Festival introduces new students to the Royal Conservatoire and its practical, educational, creative, social and artistic possibilities. During a full week of music making, attending lectures, cooperating and exploring future educational opportunities, the festival engages you right from the start. The festival consists of daily rehearsals with the First Year Choir, as well as many workshops, lectures, meetings and performances.</p>
Objectives:	<p>At the completion of this course, the student:</p> <ul style="list-style-type: none"> • knows his/her way around the Royal Conservatoire; • has started to build a network of fellow students from all departments; • is well-informed about the study programme; • has gained greater awareness of what is required to be a successful student; • knows how to protect your ears; • has gained insight into how the Royal Conservatoire could contribute to reaching his/her goals as a professional musician.
Type of course:	Compulsory
Level:	B1
Duration:	One week full-time
Prior qualifications/prerequisites:	-
Teachers:	A large variety of teachers from the Royal Conservatoire and from the professional field related to the students' future practice
Credits:	2
Literature:	-
Work form:	Plenary sessions, workshops, group lessons (40 contact hours).
Assessment:	A minimum of 80% attendance is required.
Grading system:	Attendance Sufficient/Insufficient
Language:	English
Schedule, time, venue:	tba
Information:	Festival brochure and http://intranet, koncon.nl/firstyears(festival@koncon.nl)

Course title:	Tutoring and Portfolio 1
Osiris course code:	KC-AL-PF1
Course content:	<p>First-year students entering the Royal Conservatoire are assigned a tutor. You remain with a tutor for the first three years of the bachelor's course. The tutor's role is to help you to reflect on your study and to monitor your progress. This is accomplished in two ways:</p> <ul style="list-style-type: none"> • By conducting consultations with students individually or in small groups. • By supervising the development of a personal portfolio and discussing it during individual meetings. <p>You are required to keep a personal record of your study progress from the first year until the end of the programme. This portfolio helps you to steer your personal and artistic development. It may contain materials relating to the various activities you undertake and any items you produce during the programme, which can range from a recording or an analysis of a performance, to a report for an elective subject or a personal evaluation of how your studies are progressing. It is important to choose a form that suits you so that the portfolio is something that you can identify with and are happy to work on. In other words, the portfolio should not be regarded as an additional burden, but as a study aid that could eventually serve as a professional calling card. For students in the performance and Art of Sound departments, the portfolio lays the groundwork for Preparation for Professional Practice, a course in the fourth year.</p> <p>More information can be found on intranet.</p> <p>Portfolio presentations are an integral and important part of this course. Students from the B2, B3 and B4 years present (part of) their work to all fellow students as well as to an Art of Sound staff team. After the presentation, all fellow students and the Art of Sound staff team ask questions and give feedback. Students of all Bachelor study years get in touch with each other and with each others work, and learn from each other and each others work. Students prepare for their exam presentation through being questioned and getting constructive feedback on their work.</p>
Objectives:	<p>At the completion of this course, the student:</p> <ul style="list-style-type: none"> • is able to reflect on your study progress and communicate about it with others; • is able to reflect on your personal and artistic growth by verbalizing it, in communication with others and through creating a professional portfolio; • is able to reflect on your role, task and position in the profession as well as in society, and can contribute to it. • has experience in presenting his own work to an audience; • is able to give and take constructive feedback.
Type of course:	Compulsory
Level:	B1

Duration:	Group meetings: to be decided by the tutor Private meetings: by appointment
Prior qualifications/prerequisites:	-
Teachers:	Bert Kraaijpoel
Credits:	2
Literature:	The 'Document studievoortgang en portfolio' (NL) and 'Document study progress and portfolio' (EN) can be found on intranet.
Work form:	Group and individual meetings
Assessment:	<p>Every year the tutor will assess the progress of the assigned students on the basis of the following criteria:</p> <ul style="list-style-type: none"> • Evidence that the student has monitored and improved his personal development in a professional, autonomous and critical manner. • The student has demonstrated this in the portfolio and the individual meetings with his tutor. <p>If your participation in the course and the development of your portfolio are regarded as sufficient, you will receive two credit points. NB It is not the quality of the portfolio itself, but the way in which you have used it as a 'reflective tool' that is assessed.</p>
Grading system:	Pass/Fail
Language:	English
Schedule, time, venue:	During the first year the tutors will organise a number of group sessions. Both you and your tutor can take the initiative for a meeting. Consultations with the tutor are confidential, but the tutor will inform the Head of Department in the event of study delays.
Information:	Tutoring coordinator (decaan@koncon.nl)

BACHELOR 1**ACADEMIC SKILLS**

Course title:	Audio Basics
Osiris course code:	KC-AS-AB
Course content:	Audio Basics an intensive one-week course at the start of the academic year, in which the student is introduced to the basic concepts and terminology of audio engineering in a theoretical and practical manner. The course provides an oversight of the material that will be dealt with in more depth during the course and can be regarded as a concise introduction. Subjects covered include human hearing, spectral perception, sound pressure and dynamics, acoustics, mixer architecture and signal path, filtering, microphones (directional characteristics) and signal transport. The theoretical treatment of each subject is tested in practice with small experiments.
Objectives:	At the completion of this course, the student: <ul style="list-style-type: none"> • understands the elementary concepts in audio engineering; • can apply these concepts in simple practical situations.
Type of course:	Compulsory
Level:	B1
Duration:	5 lessons à 06:00
Prior qualifications/prerequisites:	-
Teachers:	Bert Kraaijpoel
Credits:	2
Literature:	Eddy Bogh Brixen - Audio Metering: Measurements, Standards and Practice. First edition. ISBN-13: 978-0240814674 ISBN-10: 0240814673 Handouts van docent
Work form:	Group lesson
Assessment:	Every day (except the first day) starts with a mini-test on the material that was covered on the previous day. There are four tests in all (numeric results, equal weight), together with one report (pass/fail). The report describes the experiment on directional sensitivity of microphones performed during one of the lessons. The report must be submitted to the teacher within five working days of completion of the Audio Basics course. The end result is the average of the grades for the four tests and will be awarded if the student receives a 'pass' grade for the report. A minimum attendance of 80% is required.
Grading system:	Numeric
Language:	English
Schedule, time, venue:	See Asimut schedule
Information:	Paul Jeukendrup – Head of Art of Sound Department (p.jeukendrup@koncon.nl)

Course title:	Digital Audio
Osiris course code:	KC-AS-DA
Course content:	This course explains the application of digital techniques in the audio range. After an introduction to the principles of binary arithmetic, the course deals with the principles of sampling, including aliasing, filtering, quantising and dither. Conversion techniques and techniques for compensating for their shortcomings are explained. The student gains insight into various storage media for digital audio and the associated data compression and coding methods. Some of the common standards and formats used in the audio world are studied, and signal transport and synchronisation are reviewed. Finally, a number of network applications are discussed.
Objectives:	At the completion of this course, the student: <ul style="list-style-type: none"> • knows the elementary theory of digital audio techniques; • knows in general terms how digital audio equipment works; • is able to make the right choices in the application of digital audio techniques and digital audio equipment in a practical situation (recording or reproduction).
Type of course:	Compulsory
Level:	B1
Duration:	22 lessons à 02:00
Prior qualifications/prerequisites:	Audio Basics
Teachers:	Bert Kraaijpoel
Credits:	2
Literature:	An Introduction to Digital Audio, John Watkinson, 2nd Revised edition , Focal Press, 2002, ISBN: 0240516435; handouts docent
Work form:	Group lesson
Assessment:	There are two written tests during the course period. Both tests have equal weight. A minimum attendance of 80% is required.
Grading system:	Numeric
Language:	English
Schedule, time, venue:	See Asimut schedule
Information:	Paul Jeukendrup – Head of Art of Sound Department (p.jeukendrup@koncon.nl)

Course title:	Electro Acoustics 1
Osiris course code:	KC-AS-EA1
Course content:	This course covers the acoustic and electrical properties of microphones and their application. Content: <ul style="list-style-type: none"> • Theoretical and actual microphone polar patterns. • The connection between pressure or pressure gradient and transduction. • Technical specifications, objective and subjective interpretation. • Stereophonic microphone systems based on intensity differences and time differences as well as mixed forms. • Perception of phantom sources in stereo reproduction over loudspeakers (perceived directionality).
Objectives:	At the completion of this course, the student: <ul style="list-style-type: none"> • knows the electro-acoustic properties and mechanics of microphones; • is able to implement the gained insights in applied sound recording and/or sound reinforcement.
Type of course:	Compulsory
Level:	B1
Duration:	18 lessons à 02:00
Prior qualifications/prerequisites:	-
Teachers:	Bert Kraaijpoel
Credits:	2
Literature:	<ul style="list-style-type: none"> • Audio Metering, Eddy Bogh Brixen, Focal Press (2010), ISBN: 978-0-240-81467-4 (al aangeschaft voor 'Audio Basics') • Microphone Arrays for Stereo and Multichannel Sound Recordings, Michael Williams, 2004, Il Rostro, ISBN: 8873650732 • Handouts docent
Work form:	Group lesson
Assessment:	There are two written tests during the course period. Both tests have equal weight. A minimum attendance of 80% is required.
Grading system:	Numeric
Language:	English
Schedule, time, venue:	See Asimut schedule
Information:	Paul Jeukendrup – Head of Art of Sound Department (p.jeukendrup@koncon.nl)

Course title:	Mathematics and Physics 1
Osiris course code:	KC-AS-W&N1
Course content:	<p>The lessons covers the relations between a number of aspects of mathematics and physics. Where possible, the link is made with applications in the theory of sound and music technology.</p> <p>The following subjects are covered:</p> <ul style="list-style-type: none"> • fractional functions and equations • power functions and equations • exponential and logarithmic functions and equations • trigonometric functions and relations • recognising mathematics relations • using and interpreting formulas and graphs • electrostatics • electric circuits • decibel calculations • vibrations • waves and sound • complex numbers • mathematical applications of complex numbers
Objectives:	<p>At the completion of this course, the student:</p> <ul style="list-style-type: none"> • can use the formulas and graphs of linear functions, second degree functions, fractional functions, power functions, exponential functions, logarithmic functions and trigonometric functions and use the knowledge of these functions to solve equations; • can apply the knowledge of the functions above to problems about decibel calculations, vibrations, waves and sound; • can use formulas and concepts about electric force, electric fields, electric energy and potentials to solve problems about electrostatics; • can use formulas and concepts about voltage, current and resistance in connections in series in parallel and combinations of them in electric circuits; • can use formulas and concepts about vibrations and waves and apply them in problems about sound; • can make calculations with complex numbers and use them to solve polynomial equations, power equations and exponential equations; • can use complex numbers to describe collections of points in the two-dimensional plane.
Type of course:	Compulsory
Level:	B1
Duration:	27 lessons à 02:00
Prior qualifications/prerequisites:	-
Teachers:	Ron Dames
Credits:	2
Literature:	R. A.C. Dames: Mathematics and Physics 1
Work form:	Group lesson
Assessment:	There are three written tests during the course period:

	<ul style="list-style-type: none"> • Test 1: chapter 1 - 8 of <i>Mathematics and Physics 1</i>, weighting 12%; • Test 2: chapter 9 - 16 of <i>Mathematics and Physics 1</i>, weighting 44 %; • Test 3: chapter 17 - 22 of <i>Mathematics and Physics 1</i>, weighting 44 %. <p>All tests must be completed with a pass grade. A minimum attendance of 80% is required.</p>
Grading system:	Numeric
Language:	English
Schedule, time, venue:	See Asimut schedule
Information:	Paul Jeukendrup – Head of Art of Sound Department (p.jeukendrup@koncon.nl)

Course title:	Music & Media 1
Osiris course code:	KC-AS-MM
Course content:	The Music & Media course is given in three blocks of eight lectures and covers the development of the so-called 'media music' since 1950 and the impact of technological developments on it. The course is broken down into the period from approximately 1950 to 1965, which was characterised by the emergence of mobile technology (portable radio, vinyl single) in Music & Media 1, the pop period from 1960 to 1985 and the improvement in the quality of the technology (FM radio, stereo LP, CD) in Music & Media 2, and finally the development of the electronic production of sound and the influence of computer technology in Music & Media 3. The advance of technology and its influence on trends in music, as well as the dominant role of the mass media are at the heart of this course, which encompasses various listening samples, acoustic conditions and sound recording and reproduction technology.
Objectives:	At the completion of this course, the student: <ul style="list-style-type: none"> • knows the recording techniques used in jazz music in the 1950s; • knows the reproduction techniques used in jazz music in the 1950s.
Type of course:	Compulsory
Level:	B1
Duration:	5 lessons à 02:00
Prior qualifications/prerequisites:	-
Teachers:	Stefan Schmid
Credits:	0.67
Literature:	Temples of Sound / Virtual mixing (DVD) / Blue Note perfect takes (DVD) / Various Jazz CD's
Work form:	Group lesson
Assessment:	Students are assessed on the basis of their active contribution to the group sessions and on a practical assignment. The assignment is to write an essay on any course related topic, in consultation with the teacher. The paper has to be accompanied by a CD of the selection of songs/tracks the student has identified as important examples in relation to the topic. The essay will be handed in to the teacher within 30 days after the last lesson of Music and Media 1. The final result for Music and Media is the average of the 3 individual tests for Music & Media 1, 2 and 3, whereby each individual test must be passed with sufficient result. A minimum attendance of 80% is required.
Grading system:	Numeric
Language:	English
Schedule, time, venue:	See Asimut schedule
Information:	Paul Jeukendrup – Head of Art of Sound Department (p.jeukendrup@koncon.nl)

Course title:	Music & Media 2
Osiris course code:	KC-AS-MM
Course content:	The Music & Media course is given in three blocks of eight lectures and covers the development of the so-called 'media music' since 1950 and the impact of technological developments on it. The course is broken down into the period from approximately 1950 to 1965, which was characterised by the emergence of mobile technology (portable radio, vinyl single) in Music & Media 1, the pop period from 1960 to 1985 and the improvement in the quality of the technology (FM radio, stereo LP, CD) in Music & Media 2, and finally the development of the electronic production of sound and the influence of computer technology in Music & Media 3. The advance of technology and its influence on trends in music, as well as the dominant role of the mass media are at the heart of this course, which encompasses various listening samples, acoustic conditions and sound recording and reproduction technology.
Objectives:	At the completion of this course, the student: <ul style="list-style-type: none"> • can indicate properties of the recording and reproduction equipment from the 1950s, 1960s, and 1970s. • knows the influence of technological developments during the period 1877 - 1977 on the developments in the popular music genre in the same period; • can construct a list for a proposed canon of prominent 20th century music.
Type of course:	Compulsory
Level:	B1
Duration:	5 lessons à 02:00
Prior qualifications/prerequisites:	Music & Media 1
Teachers:	Attie Bauw
Credits:	0.67
Literature:	The Music Library of Alec Zendriah - Hugh Rodent
Work form:	Group lesson
Assessment:	Students are assessed on the basis of their active contribution to the group sessions and on a practical assignment. The assignment is to write an essay on any course related topic, in consultation with the teacher. The paper has to be accompanied by a CD of the selection of songs/tracks the student has identified as important examples in relation to the topic. The essay will be handed in to the teacher within 30 days after the last lesson of Music and Media 2. The final result for Music and Media is the average of the 3 individual tests for Music & Media 1, 2 and 3, whereby each individual test must be passed with sufficient result. A minimum attendance of 80% is required.
Grading system:	Numeric
Language:	English
Schedule, time, venue:	See Asimut schedule
Information:	Paul Jeukendrup – Head of Art of Sound Department (p.jeukendrup@koncon.nl)

Course title:	Music & Media 3
Osiris course code:	KC-AS-MM
Course content:	The Music & Media course is given in three blocks of eight lectures and covers the development of the so-called 'media music' since 1950 and the impact of technological developments on it. The course is broken down into the period from approximately 1950 to 1965, which was characterised by the emergence of mobile technology (portable radio, vinyl single) in Music & Media 1, the pop period from 1960 to 1985 and the improvement in the quality of the technology (FM radio, stereo LP, CD) in Music & Media 2, and finally the development of the electronic production of sound and the influence of computer technology in Music & Media 3. The advance of technology and its influence on trends in music, as well as the dominant role of the mass media are at the heart of this course, which encompasses various listening samples, acoustic conditions and sound recording and reproduction technology.
Objectives:	At the completion of this course, the student: <ul style="list-style-type: none"> • is able to distinguish between different sound synthesis methods by ear; • understands the technical principles of different sound synthesis methods; • is able to place various electronic music instruments in an historic perspective.
Type of course:	Compulsory
Level:	B1
Duration:	5 lessons à 02:00
Prior qualifications/prerequisites:	Music & Media 2
Teachers:	Paul Jeukendrup
Credits:	0.66
Literature:	Reader: Electronic Musical Instruments – Paul Jeukendrup; keynote presentatie
Work form:	Group lesson
Assessment:	There is one written test at the end of the course Music and Media 3. The final result for Music and Media is the average of the 3 individual tests for Music & Media 1, 2 and 3, whereby each individual test must be passed with sufficient result. A minimumy attendance of 80% is required.
Grading system:	Numeric
Language:	English
Schedule, time, venue:	See Asimut schedule
Information:	Paul Jeukendrup – Head of Art of Sound Department (p.jeukendrup@koncon.nl)

Course title:	Music Technology 1
Osiris course code:	KC-AS-MT1
Course content:	<p>In this course students gain an insight into analog and digital electronics as used in professional audio engineering. Students study the basic principles of electronics, such as Ohm's law and Kirchoff's law, power, passive components (resistor, capacitor, electromagnetic coil, diode, transformer) and active components (transistor, FET, vacuum tube, op-amp) and conduct practical experiments, for example with simulation software. Students measure voltage dividers, filters, RC networks and power supplies. They gain an understanding of connections between devices in audio engineering by studying the transmission of signals (balanced and unbalanced), sensitivity and impedance matching. After this first part of the programme, there is a written test on the material that has been covered.</p> <p>With respect to grounding, a distinction is made between system grounding, safety grounding and signal grounding. Students study ground loop problems, the pin 1 problem, and solutions for it. In preparation for the study of digital audio networks in the second year, students explore various protocols for digital communication with the relevant interfaces. They study the MIDI protocol, including practical applications with software such as Max/MSP. The course concludes with a second test on all the material that has been covered.</p>
Objectives:	<p>At the completion of this course, the student:</p> <ul style="list-style-type: none"> • knows the function of passive and active electronic components in equipment used in sound engineering; • knows the working principles and construction of electronic equipment as applied in sound engineering; • is able to make the right choices for a correct and fault-free signal connection between two audio devices; • understands the application of MIDI equipment and is able to operate that equipment.
Type of course:	Compulsory
Level:	B1
Duration:	22 lessons à 02:00
Prior qualifications/prerequisites:	-
Teachers:	Jan Panis
Credits:	2
Literature:	Readers Ohm's Law, Electronic components, Grounding, Midi, en het Yamaha Soundreinforcement Book, tevens Yenka en Max/MSP software
Work form:	Group lesson
Assessment:	There are two written tests during the course period. Both tests have equal weight. A minimum attendance of 80% is required.
Grading system:	Numeric
Language:	English
Schedule, time, venue:	See Asimut schedule
Information:	Paul Jeukendrup – Head of Art of Sound Department (p.jeukendrup@koncon.nl)

BACHELOR 1**MUSICIANSHIP SKILLS**

Course title:	Aural Skills, Writing Skills and Analysis 1
Osiris course code:	KC-TA-ATV1
Course content:	Students develop their practical musicianship skills needed for high quality music making and music reading: stylistic understanding, melodic, polyphonic, harmonic and analytical hearing, musical memory and imagination, music reading and writing skills. Students practice these musicianship skills through singing, playing, writing and listening as an everyday musical 'warming up'. Reading scores is trained from a basic level. The connection of the practical skills with the musical repertoire contributes to the student's cognitive development. The starting point is the student's own and other relevant repertoire, which will gradually become more complex during the course. The repertoire can be chosen from different styles and time periods. Solfège skills are developed so that students as a group or individually can 'sound' music through singing and/or playing, with good intonation and musical understanding. In analysis activities compositions are built up from the background elements, in a process led by the teacher, so that students understand musical constructs and concepts from the inside of a composition. The aural skills and analysis activities are not only 'tools', but represent artistic value in themselves. In the beginning activities will be mainly initiated by the teacher, but students can take initiative in choosing repertoire and practical assignments.
Objectives:	At the completion of this course, the student: <ul style="list-style-type: none"> • shows a reliable level of basic skills in musicianship and musical literacy; • is beginning to show a developed musical personality in his or her music making; • has a basic understanding of elementary concepts in music (melody, harmony, counterpoint, homophony, polyphony, (a)tonality, modality, texture); • Can read simple scores; • is able to use basic music theoretical terminology for musical concepts as a beginning professional musician; • has knowledge of what has been learned and is able to reflect on it.
Type of course:	Compulsory
Level:	B1
Duration:	36 lessons à 03:20
Prior qualifications/prerequisites:	-
Teachers:	Patrick van Deurzen
Credits:	14
Literature:	tba
Work form:	Group lesson
Assessment:	Attendance 80%; Weekly evaluation of assignments and activities; Half-term evaluation in December; Exam in June: <ul style="list-style-type: none"> • Portfolio of studied repertoire, assignments, literature; • Solfège performance of all first year groups. Students perform music showing their musicianship skills: stylistic understanding,

	melodic, polyphonic, harmonic and analytical hearing, musical memory and imagination, music reading and writing skills.
Grading system:	Numeric
Language:	English
Schedule, time, venue:	See Asimut schedule
Information:	Suzanne Konings – Head of Music Theory Department (s.konings@koncon.nl)

Course title:	First Year Choir
Osiris course code:	KC-AL-K1JR
Course content:	On a weekly basis, the First Year Choir starts with a vocal warming-up to teach basic singing techniques, canon singing and aural awareness. Choral repertoire is then rehearsed. There might be split rehearsals to speed up the tempo of studying. You are obliged to write marks in your parts and it is also important to study at home and be well-prepared for the rehearsal. Every week, the conductor will announce what is to be studied in the next rehearsal. The First Year Choir performs several times every academic year, with two final concerts in March.
Objectives:	At the completion of this course, the student: <ul style="list-style-type: none"> • has gained general choir singing experience; • has experience of singing and performing classical choral music; • has encountered basic singing techniques, such as posture, breath streaming, tone resonance, articulation, etc.; • has had the opportunity to improve the quality of the singing voice; • has practically applied sight-singing skills as well as listening skills and intonation; • has experienced singing as a means of musical expression; • has learned to work together with students from other departments in an artistic context.
Type of course:	Compulsory
Level:	B1
Duration:	36 lessons à 01:30
Prior qualifications/prerequisites:	-
Teachers:	Daniel Salbert
Credits:	2
Literature:	t.b.d. - At the beginning of the academic year every choir singer has to buy a personal copy of the scores and is asked to bring it to every rehearsal and concert. If a score is lost, you can buy another one at the Ticket Shop.
Work form:	Group lesson
Assessment:	A minimum of 80% presence at the rehearsals, concerts are compulsory.
Grading system:	Attendance Sufficient/Insufficient
Language:	English
Schedule, time, venue:	See Asimut schedule
Information:	Marijke van den Bergen (m.vdbergen@koncon.nl)

Course title:	History of Music 1
Osiris course code:	KC-TH-MG1
Course content:	A series of lectures about the music of the 20th century till the present. In the first semester the focus lies primarily on Stravinsky and Schönberg. In the second semester other composers and phenomena are central: Varèse, Shostakovich, Weill, Darmstadt, minimal music and post-modernism.
Objectives:	At the completion of this course, the student: <ul style="list-style-type: none"> • has an overview of, and is starting to get an insight into, the most important developments in music from 1900; • is able to communicate about this with colleagues and laymen.
Type of course:	Compulsory
Level:	B1
Duration:	32 lessons à 01:15
Prior qualifications/prerequisites:	-
Teachers:	Peter Lurvink
Credits:	3
Literature:	<p>- Alex Ross, <i>The Rest is Noise</i> (New York, 2007). NB: please don't use the Dutch translation! The most important musical examples used in the book can be found online: http://www.therestisnoise.com/noise/.</p> <p>- Material assigned by teacher, such as copies of score fragments and text written by composers.</p> <p>- On the KC Intranet page, students can find the musical fragments that are used in class, as well as lyrics and translations of vocal works, video's etc. It also contains an overview of the chapters from Ross that need to be studied, and mentions the exam dates. Intranet: click Students -> Education -> Departments -> Music Theory -> Music History Documents</p>
Work form:	Group lesson
Assessment:	Two written exams about the content of the lectures and the assigned literature. Each semester concludes with a written exam. For both exams, a minimum score of 5.5 needs to be obtained.
Grading system:	Numeric
Language:	English
Schedule, time, venue:	See Asimut schedule
Information:	Paul Jeukendrup – Head of Art of Sound Department (p.jeukendrup@koncon.nl)

Course title:	Rhythm Class 1
Osiris course code:	KC-TA-RP1
Course content:	The student enhances his rhythmic skills by means of practical and active lessons. Use is made during the lesson of Djembés and students' own instruments – alongside the voice and other instruments. The student learns to play rhythmically while reading a prima vista or playing from memory or his musical imagination.
Objectives:	At the completion of this course, the student: <ul style="list-style-type: none"> • is able to play rhythmically from sheet music and from musical memory; • is able to read rhythm notation.
Type of course:	Compulsory
Level:	B1
Duration:	36 lessons à 00:50
Prior qualifications/prerequisites:	-
Teachers:	Niels van Hoorn
Credits:	2
Literature:	Duos, trios and quartets and exercises in pieces for one voice to be handed out by the teacher. Syllabus by Niels van Hoorn and compositions by Marc Zoutendijk.
Work form:	Group lesson
Assessment:	Practical exam, in which the elements as described under 'Objectives' are tested. Compulsory attendance: 80% The 2 EC points for Rhythm Class 1 are being obtained if a minimum score of 5.5 is obtained for the exam.
Grading system:	Numeric
Language:	English
Schedule, time, venue:	See Asimut schedule
Information:	Suzanne Konings – Head of Music Theory Department (s.konings@koncon.nl)

Course title:	Sibelius Music Notation
Osiris course code:	KC-TA-SC
Course content:	In this course students learn to use Sibelius software to create scores and parts on a professional level. Students copy existing scores into Sibelius and thereby learn to put several features of the software to use and learn to make harmonisations in Sibelius.
Objectives:	At the completion of this course, the student: <ul style="list-style-type: none"> • has gained knowledge of the features of Sibelius software; • is able to create professional scores and parts for teaching and performing goals.
Type of course:	Compulsory
Level:	B1
Duration:	6 lessons à 00:50
Prior qualifications/prerequisites:	-
Teachers:	Jasper Grijpink
Credits:	1
Literature:	-
Work form:	Group lesson
Assessment:	A minimum attendance of 80% Exam in which practical skills of the student are being assessed. Students who already possess the skills required can apply to participate in the exam without attending the lessons.
Grading system:	Pass/Fail
Language:	English
Schedule, time, venue:	See Asimut schedule
Information:	Suzanne Konings, s.konings@koncon.nl

BACHELOR 2

ARTISTIC DEVELOPMENT

Course title:	Recording 2
Osiris course code:	KC-AS-REC2
Course content:	<p>The first two years of the four-year Recording course are mandatory for all students. In the third and fourth years the course is compulsory for students who have chosen Recording as their specialisation; for the other students it is an elective course as part of the minor in Recording.</p> <p>In the Recording course the student receives practical instruction in the professional recording process, whereby a musical event is recorded as it occurred in space and time in such a way that on reproduction of this recording the sound and musical experience of the original event are approached as closely as possible. These processes are typical of recordings in the classical and jazz repertoire. The student develops an audio-technical vision that corresponds with the relevant musical given.</p> <p>The student learns to use the common stereo main system techniques AB, XY, MS, ORTF and OHNO in practice. The sound properties of the different systems are analysed using the parameters of spatiality, timbre and source localisation as the main assessment criteria. The influence on the sound of the positioning of the main system in large and small spaces and in relation to the source is studied in order to be able to choose the correct main system in varying acoustical and musical circumstances. The student learns how to use support microphones for soloists, instruments and instrument groups in small and large settings.</p> <p>The student learns to work with various DAW platforms, with the emphasis on:</p> <ul style="list-style-type: none"> • the organisation of multitrack projects; • creating a structural set-up for a multitrack project; • editing musical material performed by small and large ensembles; • creating a musical balance that corresponds with the musical event; • keeping complete and accurate records of the project. <p>Instrument clinics and ensemble clinics teach the students in a very direct way about the source. Various common instrument groups are studied in a practical fashion, with a focus on sound, historical development, the mechanics of the instruments and the function of the instrument and the playing techniques used in different musical styles. Various forms of ensemble common in the classical, contemporary or jazz repertoire are closely studied in a practical manner, with the focus on sound, historical development, repertoire and the usual arrangements on the stage.</p> <p>During the lessons professional recording situations of varying complexity are simulated. The student follows the entire recording process in a team under the teacher's supervision. Elements of this process are preparing a score, drafting a recording plan, holding the recording session, keeping administrative records of the project, communicating with musicians and other stakeholders, editing the</p>

	<p>recording, mixing the recording and delivering the end product within a prescribed deadline.</p> <p>During the first three years of the course a distinction is made between making recordings in large spaces (concert hall recording) and making recordings in small spaces (studio recording).</p> <p>Depending on the size of the group, the teacher may decide to divide the students into smaller groups during the lesson if that will benefit the teaching process; the student will then have less contact time, but it will be more intensive.</p>
Objectives:	<p>At the completion of this course, the student:</p> <ul style="list-style-type: none"> • has a basic to intermediate knowledge of microphone types and their applications in music recording; • has a basic to intermediate knowledge of stereo main systems and their applications in music recording; • is able to make the right choice of a microphone type and microphone position for a given acoustical source at a basic to intermediate level; • is able to make the right choice of a stereo main system in given acoustical circumstances at a basic to intermediate level; • is able to work with DAW platforms at a basic to intermediate level; • has basic to intermediate mixing and editing skills; • has basic to intermediate communication skills in a music recording situation.
Type of course:	Compulsory
Level:	B2
Duration:	20 lessons à 02:00
Prior qualifications/prerequisites:	Recording 1
Teachers:	Daan van Aalst Micha de Kanter
Credits:	2
Literature:	-
Work form:	Group lesson
Assessment:	<p>There are two practical assignments at the end of the course. Both assignments have equal weight:</p> <p>1. Concert Hall Recording: The student will make a project setup and a mixdown of a live multitrack concert hall recording with DAW software (Pyramix) and hand in a stereo mix, a project file and the project administration. The mix and project structure will be assessed on applied techniques as discussed in class as well as a musically balanced mix. The project has to be completed by the student as home work. The studio facilities (Control Room) will be used for this purpose. The assignment has to be made available to the teacher through the e-portfolio of the student within 14 days after the last concert hall recording lesson.</p> <p>2. Studio Recording: The student will make a project setup and a mixdown of a live multitrack studio recording with DAW software (ProTools) and hand in a stereo mix, a project file</p>

	<p>and the project administration. The mix and project structure will be assessed on applied techniques as discussed in class as well as a musically balanced mix. The project has to be completed by the student as home work. The studio facilities (Studio B) will be used for this purpose. The assignment has to be made available to the teacher through the e-portfolio of the student within 14 days after the last studio recording lesson.</p> <p>A minimum attendance of 80% is required.</p>
Grading system:	Numeric
Language:	English
Schedule, time, venue:	See Asimut schedule
Information:	Paul Jeukendrup – Head of Art of Sound Department (p.jeukendrup@koncon.nl)

Course title:	Producing 2
Osiris course code:	KC-AS-PRD2
Course content:	<p>The first two years of the four-year course in Producing are mandatory for all students. In the third and fourth years the course is compulsory for students who have chosen Producing as their specialisation; for the other students the course is an elective in the minor in Producing.</p> <p>The Producing course gives the student a practical grounding in the professional music production process, in which existing or pre-recorded material has to be combined and edited using technology to produce an end result that on reproduction has not previously taken place as such in terms of space and time. These processes are typical of music productions in the contemporary popular repertoire. The student develops an audio-technical vision that corresponds with the relevant musical given.</p> <p>The student learns various uses of microphones that are customary in music production, whereby maximum phase coherence and/or source separation is achieved by means of a combination of microphone placement, directional characteristic and acoustic solutions.</p> <p>In the application of music production techniques a distinction is made between the creative and the supporting role that technology plays in music production and the function of common production techniques in the arrangement is studied. The student learns music production techniques such as editing, mixing, spectral processing, dynamic processing, spatial processing, time and pitch processing, (mix) automation, midi & audio programming, applied sound synthesis, sampling, re-amping and sound replacement.</p> <p>The student learns to work in both an analog and a digital music production environment, with the emphasis on:</p> <ul style="list-style-type: none"> • the organisation of multitrack projects; • creating a structural set-up for a multitrack project; • combining and editing musical material in a layered structure into a new arrangement; • creating a musical balance that corresponds with the musical event; • keeping complete and accurate administrative records of the project. <p>Instrument clinics and ensemble clinics teach the students in a very direct way about the source. Various common instrument groups are studied in a practical fashion, with a focus on sound, historical development, the mechanics of the instruments and the function of the instrument and the playing techniques used in different musical styles and the use of different microphone techniques in specific musical situations.</p> <p>During the lessons professional music production situations of varying complexity are simulated. The student follows the entire music production process as part of a team under the teacher's supervision. Elements of this process are identifying and compiling the musical material, drafting a music production plan, conducting recording sessions, keeping administrative records of the project and</p>

	<p>communicating with musicians and other stakeholders, producing the arrangement (including combining and editing the musical material), producing the mix and delivering the end product within a prescribed deadline.</p> <p>Depending on the size of the group, the teacher may decide to divide the students into smaller groups during the lesson if that will benefit the teaching process; the student will then have less contact time, but it will be more intensive.</p>
Objectives:	<p>At the completion of this course, the student:</p> <ul style="list-style-type: none"> • has basic to intermediate knowledge about microphone applications in music production; • has basic to intermediate knowledge about music production techniques as applied in music production; • is able to work in an analog and a digital music production environment at a basic to intermediate level; • has basic to intermediate editing and mixing skills; • is able to make a correct choice for music production techniques in a given musical situation at a basic to intermediate level; • has basic to intermediate arranging skills as applied in a music production situation; • has basic to intermediate communication skills in a music production situation.
Type of course:	Compulsory
Level:	B2
Duration:	20 lessons à 02:00
Prior qualifications/prerequisites:	Producing 1
Teachers:	Attie Bauw Maurice Bom
Credits:	2
Literature:	-
Work form:	Group lesson
Assessment:	There is a written test at the end of the course with multiple choice questions and open questions that require answering in approximately five lines. This test investigates the degree to which the student has learnt, memorised and understood the technical and theoretical information about recording and producing in a studio environment as discussed in class. A minimum attendance of 80% is required.
Grading system:	Numeric
Language:	English
Schedule, time, venue:	See Asimut schedule
Information:	Paul Jeukendrup – Head of Art of Sound Department (p.jeukendrup@koncon.nl)

Course title:	Sound Reinforcement 2
Osiris course code:	KC-AS-SR2
Course content:	<p>The first two years of the four-year course in Sound Reinforcement are mandatory for all students. In the third and fourth year the course is compulsory for students who have chosen Sound Reinforcement as their specialisation; for the other students the course is an elective as part of the minor in Sound Reinforcement.</p> <p>The Sound Reinforcement course gives the student a practical grounding in the professional sound reinforcement process when, for musical and/or acoustic reasons, the sound at a musical event has to be adjusted with the help of technology. Characteristic of this situation is that the reproduction occurs simultaneously with and in the same space as the musical action. These situations arise at concert recitals and theatre performances in various musical styles and acoustic conditions. The student develops an audio-technical vision that corresponds with the relevant musical given.</p> <p>The timbral properties of different loudspeaker setups are analysed in spaces with different acoustic and architectural properties. The influence of a loudspeaker setup on spatiality, timbre and source localisation are studied in order to learn how to make the correct choice of loudspeaker arrangement under various musical and acoustic conditions. A distinction is made between single and composite loudspeaker systems, using both point source and line source subsystems.</p> <p>The student learns about various customary microphone applications for sound reinforcement, with a distinction being made between overhead miking, close miking and clip-on miking. The impact of each application in terms of timbre, cross-talk and feedback are studied in order to learn the correct application to choose in different acoustic and musical circumstances. The student learns to work with both wireless and wired technologies.</p> <p>The student learns to work with analog and digital mixing platforms, with the emphasis on:</p> <ul style="list-style-type: none"> • the organisation of the signal distribution in a mixing platform; • creating a functional connection structure between source, mixing platform and destination; • actively operating the mixing platform, with technical choices being based on considerations of a musical nature; • creating a musical balance that corresponds with the musical event; • keeping complete accurate administrative records of the project. <p>Professional sound reinforcement situations of varying complexity are simulated during the lessons. The student follows the entire amplification process as part of a team under the teacher's supervision. This process includes studying the artistic event, designing and realising a loudspeaker and microphone setup that corresponds with the musical event, performing a sound check, creating an aesthetically and functionally correct sound balance in the hall, creating a functional stage sound, keeping records of the project and communicating with musicians and other stakeholders. The student learns to work safely and under</p>

	<p>time pressure.</p> <p>Depending on the size of the group, the teacher may decide to divide the students into smaller groups during the lesson if that will benefit the teaching process; the student will then have less contact time, but it will be more intensive.</p>
Objectives:	<p>At the completion of this course, the student:</p> <ul style="list-style-type: none"> • has a basic to intermediate knowledge of microphone types and their applications in sound reinforcement; • has basic to intermediate knowledge of loudspeaker systems and their applications in sound reinforcement; • is able to make a correct choice for a loudspeaker system and its setup for a given artistic event in a given acoustical situation at a basic to intermediate level; • is able to make a correct choice for a microphone type and its positioning for a given source in a given acoustical situation at a basic to intermediate level; • is able to work with analog and digital mixing platforms at a basic to intermediate level; • is able to realise a functioning mobile sound reinforcement system of low to intermediate complexity within certain time limits; • has basic to intermediate mixing and monitor mixing skills; • has basic to intermediate communication skills in a sound reinforcement situation.
Type of course:	Compulsory
Level:	B2
Duration:	20 lessons à 02:00
Prior qualifications/prerequisites:	Sound Reinforcement 1
Teachers:	Rob van der Meijs
Credits:	2
Literature:	-
Work form:	Group lesson
Assessment:	<p>There is one practical assignment at the end of the course. The student will hand in documented materials of a simple sound reinforcement project that has been initiated and performed by the student. The project meets the following requirements:</p> <ul style="list-style-type: none"> • minimum 8 and maximum 24 inputs (mainly acoustical sources); • stereo PA output; • minimum 1 monitor feed. <p>The materials will cover three parts:</p> <p>1. The student will hand in the digital mixing platform session that was used during the performance of the project. The session will be assessed on:</p> <ul style="list-style-type: none"> • session structure; • mixer layout; • patching; • routings.

	<p>2. The student will hand in the complete project administration that has been prepared before and during the project and corrected after the performance of the project. The documentation will be assessed on the quality and completeness of the:</p> <ul style="list-style-type: none"> • equipment list; • patch list including microphone choices; • loudspeaker plan(s); • stage plan(s); • time schedule. <p>3. The student will record (part of) the performance of the project on a common digital multitrack recording platform (48 kHz, 24 bit, minimum 5 minutes of music). The recording is made in such a way that the audio files can be used for a virtual sound check with the mixer session as mentioned under point 1. The student will hand in those audio files in a data-compressed format (zip. file) with a maximum file size of 1 GB.</p> <p>All materials will be made available to the teacher through the e-portfolio of the student within 14 days after the last lesson.</p> <p>A minimum attendance of 80% is required.</p>
Grading system:	Numeric
Language:	English
Schedule, time, venue:	See Asimut schedule
Information:	Paul Jeukendrup – Head of Art of Sound Department (p.jeukendrup@koncon.nl)

Course title:	Classical Recording 1
Osiris course code:	KC-AS-CR1
Course content:	<p>In the course Classical Recording, students initially learn to recognise the specific sound of individual instruments and ensembles in various musical styles in the context of recorded music. In the lessons students listen to examples of various soloists, ensembles in small and large settings and orchestras. Orchestra and ensemble settings that are dealt with include the string quartet, piano trio, woodwind quintet and the symphony orchestra in American and Viennese settings.</p> <p>Secondly, the course focuses on Natural Harmonics, Tuning and Temperament in relation to timbre, building scales and performance practice.</p> <p>Thirdly, students develop an understanding of the mechanics and acoustic properties of individual musical instruments. The practical examples from the instrument clinics in the course Recording 2 will be used to explore the various instrument groups (string, wind, brass, percussion and keyboard instruments) in more depth.</p> <p>Fourthly, the course focuses on score analysis in relation to recording practice. Among other things, students develop a notation system, work with transpositions, dynamic indications and the connection between noted and performed material and learn to prepare an editing plan.</p>
Objectives:	<p>At the completion of this course, the student:</p> <ul style="list-style-type: none"> • can recognise and name different instrument groups; • can define tuning and different temperaments in historical perspective • knows the effect of natural harmonics to the timbre of an instrument • can name customary compositions of small ensembles; • knows the usual stage arrangements of small ensembles and the consequences for the choice of microphone setup; • can make a connection between the score for a small ensemble and that which sounds during a performance of the score; • can make an editing plan with the score for a small ensemble and has developed a notation system for it.
Type of course:	Compulsory
Level:	B2
Duration:	12 lessons à 02:00
Prior qualifications/prerequisites:	-
Teachers:	Daan van Aalst
Credits:	1
Literature:	The Science of Sound - Rossing, Moore, Wheeler (ISBN 9781292039572). (copies of) scores, handouts
Work form:	Group lesson
Assessment:	There is a written test at the end of the first year. Students are assessed on their knowledge of musical instruments and instrument groups, on their knowledge about natural harmonics, tuning and temperament.

	A minimum attendance of 80% is required.
Grading system:	Numeric
Language:	English
Schedule, time, venue:	See Asimut schedule
Information:	Paul Jeukendrup – Head of Art of Sound Department (p.jeukendrup@koncon.nl)

Course title:	Electronic Music Production 1
Osiris course code:	KC-AS-EMP1
Course content:	<p>This course takes the student on a journey through technologies applied in music production as developed at the end of the twentieth century. The subject is taught in a very practical way with many practical assignments and a direct musical output.</p> <p>The course explores the interface between music and technology and treats the following subjects:</p> <ul style="list-style-type: none"> • introduction to Ableton Live, comparison with ProTools and Logic; • the concept of audio-, midi clips; • the concept of sampling and looping and time grid; • putting break beats 'in the grid'; • layering different break beats; • putting vocals (accapellas) in the grid; • combining rhythm and vocal samples/loops; • adding other instruments by midi recording or sampling; • fresh-up Subtractive Synthesis: (VCO, VCF, VCA, LFO) with hands-on analog synth (Korg MS20); • determining differences of waveforms and filter types; • basic sound programming (pad, lead, drum, bass) on a monophonic synth; • connecting the digital world with and analog synth (midi, cv/gate, Korg MS20 external signal processor); • transporting that knowledge to common synth VSTs; • basic sound programming (pad, lead, drum, bass); • Analog Sequencing and Sampler/Midi Sequencers; • with the examples of Korg SQ10 (24-step analog sequencer) and the MPC3000 (as the classic sampler/midi sequencer): making an acid sequence, Hiphop drumbeat, breakbeat; • transporting that knowledge to Ableton Live and Logic Pro, using the Samplers, Arpeggiator, midi sequencing and virtual drum machines; • a more indepth look at Ableton Live and Logic Pro (plug-ins, routing, rewire, editing); • the concept of remixing examples (Moloko-Sing it Back, Good Life -NPG/Carl Craig, Madonna remixes, Disco Dance mixes); • the concept of Dub remixing (King Tubby, Lee Perry)
Objectives:	<p>At the completion of this course, the student:</p> <ul style="list-style-type: none"> • is able to work with Ableton Live on a basic to intermediate level; • is able to work with LogicProX on a basic to intermediate level; • is able to program any analog synthesizer or synth plug-in; • knows about the concepts of: sampling, looping, chopping, sequencing and remixing; • knows the most important musical styles in late 20th century electronic music production.
Type of course:	Compulsory
Level:	B2
Duration:	12 lessons à 02:00
Prior	Music & Media 3

qualifications/prerequisites:	
Teachers:	Stefan Schmid
Credits:	2
Literature:	Ableton Live, Logic Pro
Work form:	Group lesson
Assessment:	<p>There are one practical home assignments that has to be handed in to the teacher within 30 days of the last lesson in the course:</p> <ul style="list-style-type: none"> • remixing a (commercially released) piece of music in Ableton Live or LogicPro. <p>A minimum attendance of 80% is required.</p>
Grading system:	Numeric
Language:	English
Schedule, time, venue:	See Asimut schedule
Information:	Paul Jeukendrup – Head of Art of Sound Department (p.jeukendrup@koncon.nl)

Course title:	Instrument 2
Osiris course code:	KC-AS-BI2
Course content:	<p>The student follows the Instrument course throughout the four years of the programme. The aim of the instrumental or vocal lessons is to support the development of the student's playing or singing skills and musicality in the main subject. The course assists the music technologist in assessing and communicating with musicians about the artistic and technical aspects of a performance. It covers aspects such as musical interpretation, quality of performance, degree of difficulty, tempo, purity and, in the case of jazz / pop, improvisational skills.</p> <p>At the time of registration for the entrance exam, the student has already made a choice for either classical or jazz / pop. In both streams, the student practices the technical skills by playing etudes and exercises.</p> <p>Although the aim is to achieve the highest possible technical standard, the level of progress is more important than the absolute technical level. For the two streams, musical development is defined as follows:</p> <p>Classical: The student plays a varied and multifaceted repertoire in which compositions from different style periods of Western music history are represented. The student learns to interpret and perform the various styles.</p> <p>Jazz / Pop: The student plays a varied and multifaceted repertoire in which improvisations and arrangements from various streams in Western jazz and/or pop music are represented. The student learns to improvise in the various streams.</p>
Objectives:	<p>At the completion of this course, the student:</p> <ul style="list-style-type: none"> • is able to play an instrument or to sing at a satisfactory musical and technical level; • displays progress in musical and technical terms, (a potential for) musical growth, musical diversity and (for jazz and pop) the ability to improvise; • classical: is able to interpret and perform a diverse and multifaceted repertoire in which compositions from various style periods of Western music history are represented at a basic to intermediate level; • jazz / pop: is able to interpret and perform a diverse and multifaceted repertoire in which improvisations and arrangements from various streams of Western jazz and/or pop music are represented at a basic to intermediate level.
Type of course:	Compulsory
Level:	B2
Duration:	34 lessons à 00:40
Prior qualifications/prerequisites:	Instrument 1
Teachers:	Ruben van Roon Jack Pisters Instrumental and Vocal Teachers
Credits:	9

Literature:	Sheet music
Work form:	Individual lesson
Assessment:	<p>As a rule, the transitional exam in Instrument 2 takes place in May of the second year of the course (the exam lasts 20 minutes).</p> <p>The assessment criteria for the Instrument 2 transitional exam are:</p> <ul style="list-style-type: none"> • musical development; • instrumental/vocal technical development; • development of ability to work independently; • for jazz / pop: ability to improvise. <p>The Instrument 2 (Classical) transitional exam consists of the live performance in front of a committee of a programme comprising one or more etudes, together with three assigned pieces from three different style periods. The student may bring an accompanist to the exam. The course does not provide accompanists.</p> <p>The Instrument 2 (jazz, pop) transitional exam consists of the live performance in front of a committee of a programme comprising one or more etudes, together with three assigned pieces that differ in style and tempo. The student must arrange his own accompanying musicians and the necessary instruments/ backline. The course does not provide accompanists.</p>
Grading system:	Numeric
Language:	English
Schedule, time, venue:	Schedule to be agreed upon with the teacher
Information:	Paul Jeukendrup – Head of Art of Sound Department (p.jeukendrup@koncon.nl)

Course title:	Listening Skills 2
Osiris course code:	KC-AS-LS2
Course content:	<p>In the three-year course in Listening Skills the student is trained to listen to and speak accurately about sound specifically as it applies to the creation, assessment, composition and editing of music productions. A distinction is made in that context between Critical Listening Skills and Analytical Listening Skills:</p> <p>Critical Listening Skills are defined as the ability to listen technically, such as:</p> <ul style="list-style-type: none"> • recognising frequencies (expressed in Hertz); • recognising (resonance) frequency ranges (expressed in Hertz); • recognising loudness (expressed in dB SPL); • recognising positioning in space by means of differences in intensity; • recognising positioning in space by means of time differences; • recognising spatiality (properties of natural or synthetic acoustics); • recognising different types of distortion (linear and non-linear distortion). <p>Critical Listening Skills are trained with technical examples of sounds independent of a musical context.</p> <p>Analytical Listening Skills are defined as the capacity to listen analytically, such as:</p> <ul style="list-style-type: none"> • recognising the pitches of the various elements present in a complex signal (music production); • recognising the spectral content of the various elements present in a complex signal (music production); • recognising the relative sound levels of the various elements present in a complex signal (music production); • recognising the spatial properties of the various elements present in a complex signal (music production); • establishing connections between the musical context of a complex signal and all the aforementioned parameters on the basis of an analysis of the form of the musical material. <p>Analytical Listening Skills are trained with examples of musical sounds. Both existing audio materials and material produced by the student in the main subject lessons are analysed and discussed by the group during the lessons. Evaluation forms distributed during the lesson are used for this purpose.</p> <p>The acoustic, electro-acoustic, and psycho-acoustic aspects of the listening environment are dealt with by means of experimenting with and assessing various monitor set-ups and listening positions in relation to the acoustic and architectural properties of the space.</p>
Objectives:	<p>At the completion of this course, the student:</p> <ul style="list-style-type: none"> • is able to recognize frequencies with a resolution of 2/3rd octave; • is able to recognize (resonance-) frequency ranges with a resolution of 2/3rd octave; • is able to recognize loudness level differences with a resolution of 6 dB SPL; • is able to evaluate spatiality (natural or synthetic) in a complex audio signal at an intermediate level; • is able to recognize and evaluate several kinds of linear and non-linear distortion in recorded musical material due to technical imperfections during the recording or reproduction process at an intermediate level;

	<ul style="list-style-type: none"> • is able to assess recorded musical material in terms of spatial image, ambience, frequency response, musical balance, dynamic range, artistic merit and technical merit at an intermediate level; • is able to assess quality aspects of individual components or storage media as typically used in the audio industry by ear at an intermediate level.
Type of course:	Compulsory
Level:	B2
Duration:	12 lessons à 02:00
Prior qualifications/prerequisites:	Listening Skills 1
Teachers:	Matthijs Ruijter
Credits:	1
Literature:	William Moylan - Understanding and Crafting the Mix: The Art of Recording. Jason Corey - Technical Ear Training
Work form:	Group lesson
Assessment:	There are two written tests during the course period. Both tests have equal weight. A minimum attendance of 80% is required.
Grading system:	Numeric
Language:	English
Schedule, time, venue:	See Asimut schedule
Information:	Paul Jeukendrup – Head of Art of Sound Department (p.jeukendrup@koncon.nl)

Course title:	Main Subject B2
Osiris course code:	KC-AS-HV2
Course content:	<p>The individual main subject lessons are intended to give personal supervision to the student in his professional development and to guide the student in preparation for the test / exam at the end of the academic year. During these lessons the student's portfolio is discussed and he receives feedback on his work. This helps the student to develop a personal audio-technical vision of sound which corresponds with the relevant musical event. The student is advised on the choice of projects and the choice of a particular working method. In that context, the preparation, planning and implementation of the project, the communication during the project and the need to keep adequate administrative records of the project are explored in more depth.</p> <p>The individual main subject lessons are arranged according to the specialisation chosen at the end of the first year of the course and the programme is adapted accordingly.</p>
Objectives:	<p>At the completion of this course, the student:</p> <ul style="list-style-type: none"> • can present a representative and varied programme of music recordings, music productions or sound reinforcement projects at an elementary level; • can analyse and provide feedback on their own and other person's work to an elementary level; • can work independently and professionally in a music recording project, music production project or sound reinforcement project, both inside and outside the conservatoire, at an elementary level; • has developed an outspoken artistic vision of the application of technology in an artistic environment at an elementary level.
Type of course:	Compulsory
Level:	B2
Duration:	16 lessons à 00:30
Prior qualifications/prerequisites:	Recording 1, Producing 1, Sound Reinforcement 1
Teachers:	Daan van Aalst Micha de Kanter Bastiaan Kuijt
Credits:	1
Literature:	-
Work form:	Individual lesson
Assessment:	<p>At the end of the second year of the course the individual student's progress in the main subject will be assessed by means of a presentation of the student's work to a committee of teachers. This exam will generally take place in June of the second year of the course (the exam lasts 30 minutes).</p> <p>The aim of the transitional exam II-III is:</p> <ul style="list-style-type: none"> • to assess the student's progress in the main subject on the basis of his/her e-portfolio; • assess the student's creativity and audio-technical insight on the basis of the

work presented;

- assess the student's efforts and work ethic on the basis of his/her e-portfolio.

In total, two projects will be presented with a report and audio material as included in the student's e-portfolio:

- One project of the student's own choice relating to his/her chosen specialisation and of which the student was team leader;
- One project that is selected by the committee from the student's e-portfolio at the exam.

The presentation must contain relevant audio and possibly video examples from which the examination committee can make an assessment of the candidate's technical, artistic and entrepreneurial competences.

In preparation for the presentation the exam candidate must provide each individual member of the committee with a working (possibly temporary) hyperlink to the e-portfolio no later than 14 days before the presentation. The student's e-portfolio contains a table of contents mentioning all relevant projects and clearly showing which projects the student took part in as team leader.

During the exams the student will submit an audio CD with the listening examples for the archives. The CD must be accompanied by documentation of all relevant information concerning composers, titles, performers, data of recording, recording locations and names and functions of those who worked on the production.

The work of the student will be assessed on the basis of the portfolio and the presentation in light of the student's choice of specialisation. If there are urgent reasons to do so, the student has the possibility to revise the choice of specialisation. The committee may make a (non-binding) recommendation about the choice of specialisation.

The student's work will be assessed, on the basis of the portfolio and the presentation, on the following aspects:

1. Audio-technical quality

- balance;
- spectral balance;
- dynamics;
- spatiality;
- (stereo) imaging;
- technical merit.

2. Creativity

- overall artistic content and vision;
- interpretation of the musical material in relation to sound;
- (post) processing;
- analytical ability;
- working method.

	<p>3. Work ethic</p> <ul style="list-style-type: none"> • self-activity; • portfolio (qualitative); • portfolio (quantitative); • planning and organisation; • communication; • reflection.
Grading system:	Numeric
Language:	English
Schedule, time, venue:	Schedule to be agreed upon with the teacher
Information:	Paul Jeukendrup – Head of Art of Sound Department (p.jeukendrup@koncon.nl)

Course title:	Projects B2
Osiris course code:	KC-AS-PRB2
Course content:	<p>Throughout the entire course period students will carry out study projects. A project is work performed independently by a student, alone or in a team, that shows strong similarities with the work process in the regular professional practice, for example recording projects, music production projects or sound reinforcement projects. The aim of these projects is to prepare in a practical and very direct way for professional practice by learning professional skills such as preparing a timetable, working under pressure, functioning in a team and communicating in an artistic environment.</p> <p>At the beginning of the course, projects are usually assigned to the student and the details of the project are determined by the main subject teacher and/or project coordinator. As the course progresses, the student will be given more and more freedom, first in choosing projects and later also in working out the details of the projects. In the fourth year of the course, the emphasis will be on projects that are chosen and performed entirely independently.</p> <p>A project must be carefully planned and documented. The physical evidence of the projects is kept in the student's portfolio.</p> <p>The project coordinator supervises the student in the choice of projects and awards the relevant credit points. Factors in his decision are the degree of difficulty and the extensiveness of the project and the student's role in the project. The project coordinator monitors deadlines and, if necessary, addresses the student for not meeting these deadlines.</p> <p>The project coordinator does not personally supervise the projects. If active supervision of a project is needed (as in the case of a question about quality), the project coordinator can designate a supervisor.</p> <p>The main subject teacher (individual main subject) may provide the student with professional feedback on the basis of and by means of the portfolio. The student has to request the feedback, it is not initiated by the main subject teacher. The student may not claim any time from the individual main subject lessons for the teacher's supervision of a project. If active supervision of a project is needed (as in the case of a question about quality), the project coordinator can designate a supervisor.</p> <p>Every project will be carried out by one or more students, including a team leader. Where applicable, the team leader will qualify for extra credit points for his work. The course can stipulate requirements for the number of projects in which the student has to act as a team leader. The tasks of the team leader are as follows:</p> <ul style="list-style-type: none"> • principal responsibility for and contact person for the entire project; • assembling the project team; • submitting a project application to the project coordinator; • writing the project report and submitting the report to the project coordinator within a month of completion of the project; • providing the department, in the person of the project coordinator, with the final

	<p>results of the project (as a rule in the form of audio) within one month of the completion of the project;</p> <ul style="list-style-type: none"> • in the case of a project initiated by the student him/herself, the team leader will be the initiator of the project. <p>The student is in principle obliged to attend every lesson. However, it is inevitable that some lessons will be missed because of participation in a project. Students are personally responsible for minimising their absence. If projects coincide with exams or tests, exams and tests take priority. If attendance at lessons is an assessment criterion for a course, the assessment criteria set out in the in the curriculum apply; participation in a project is not an alternative to this assessment criterion. Students must take this into account in their planning. When planning projects, students must take account of the fact that obligations regarding the course always take priority over the obligations relating to projects. That applies in particular for attendance at exams and tests.</p> <p>With a commitment to participate in a project, a student undertakes to actually carry out the project. If, because of unforeseen circumstances or force majeure, there is a valid reason for not taking part in the project, the student concerned must arrange an adequate substitute so that the project as a whole can continue.</p>
Objectives:	<p>At the completion of this course, the student:</p> <ul style="list-style-type: none"> • is able to work independently at a basic to intermediate level in a professional environment; • has acquired practical experience with working in a team at a basic to intermediate level; • is able to plan and to organize at a basic to intermediate level; • has basic to intermediate production skills; • is able to communicate at a basic to intermediate level in a (semi-) professional environment.
Type of course:	Compulsory
Level:	B2
Duration:	n/a
Prior qualifications/prerequisites:	Projects B1
Teachers:	n/a
Credits:	2
Literature:	n/a
Work form:	n/a
Assessment:	<p>In order to qualify for credit points, for every project an application must be submitted to the project coordinator before the project is carried out using a project application form (available on the intranet). A single project application form has to be submitted for each project containing the names and tasks of all the participating students and a timetable that is as accurate as possible. A project application must also be submitted for projects that are initiated or assigned by the department. The project coordinator determines the number of credit points (EC) that will be awarded on completion of the project, in consultation with the main subject teacher. Factors that will be taken into account are the educational value of the project for the individual student and the time invested by the student. The</p>

	<p>number of ECs awarded on completion of the project will be notified to the student by the project coordinator within two weeks of the application.</p> <p>A report has to be written for each project, which will be inserted in the portfolios of all the participating students. The report must include at least:</p> <ul style="list-style-type: none"> • Substantive information, documented in such a way that a CD booklet or a programme can be compiled from it; • A brief description of how the project progressed; • A brief evaluation of the project, including reflection; • Technical information, documented in such a way that the project can be reproduced by a third party on the basis of that documentation. <p>The project report must be included in the student's e-portfolio and submitted to the project coordinator for assessment within one month of completion of the project.</p> <p>If there is an end result recorded in audio form, if necessary in combination with a video, this recorded end result must be inserted in the student's e-portfolio, accompanied by accurate and complete documentation, within one month of completion of the project.</p> <p>A project qualifies for the predetermined number of ECs if the following criteria are met:</p> <ul style="list-style-type: none"> • The project is completed within a reasonable period. • The report of the project is present in the relevant student's e-portfolio and has been submitted to the project coordinator within one month of completion of the project, and latest before July 1st of the current study year. • The recorded end result (as a rule in the form of audio) has been made available to the project coordinator in the e-portfolio within one month of completion of the project, and latest before July 1st of the current study year.
Grading system:	Pass/Fail
Language:	English
Schedule, time, venue:	n/a
Information:	Paul Jeukendrup – Head of Art of Sound Department (p.jeukendrup@koncon.nl)

Course title:	Technical Theatre Skills
Osiris course code:	KC-AS-TTS
Course content:	This course is devoted to facets of the subject that are not directly related to the professional practice of the music technologist, but are closely associated with that professional practice. The focus lies on skills that are in great demand in a professional environment where sound reinforcement is applied for music and music theatre, for example in the theatre. The course deals in a very practical way with the safety aspects of working at heights and working with weights, the basic principles of working safely with hoisting installations and when hanging (sound) equipment (rigging), provides an introduction to lighting techniques and the basic principles of video technology and wireless techniques (radio frequency). The student learns how to use CAD techniques in practical applications, such as reading a 2D CAD drawing and adding elements to an existing 2D CAD drawing.
Objectives:	At the completion of this course, the student: <ul style="list-style-type: none"> • is aware of the dangers and the safety aspects of working at heights and working with weights; • knows the basic principles of lighting techniques and video technology; • is capable of creating a properly functioning and faultless wireless audio connection in a hall; • is able to read and correctly interpret a CAD drawing of a theatre arrangement- and can add elements to an existing CAD drawing.
Type of course:	Compulsory
Level:	B2
Duration:	12 lessons à 02:00
Prior qualifications/prerequisites:	Sound Reinforcement 1
Teachers:	Jos Diergaarde Jan Panis Joep de Jong
Credits:	1
Literature:	-
Work form:	Group lesson
Assessment:	There is one practical assignment at the end of the CAD lessons. The student will hand in a 2D CAD drawing based on an existing CAD drawing of a theatre environment and completed by the student with elements that are required for a theatrical performance as defined by the teacher. The assignment has to be handed in as a CAD file (DXF/DWG) within 14 days of the last CAD lesson. The student will be assessed on the completeness of the file, the accuracy of the drawing and the orderliness of the work. A minimum attendance of 80% is required.
Grading system:	Numeric
Language:	English
Schedule, time, venue:	See Asimut schedule
Information:	Paul Jeukendrup – Head of Art of Sound Department (p.jeukendrup@koncon.nl)

BACHELOR 2

PROFESSIONAL PREPARATION

Course title:	Tutoring and Portfolio 2
Osiris course code:	KC-AL-PF2
Course content:	<p>First-year students entering the Royal Conservatoire are assigned a tutor. You remain with a tutor for the first three years of the bachelor's course. The tutor's role is to help you to reflect on your study and to monitor your progress. This is accomplished in two ways:</p> <ul style="list-style-type: none"> • By conducting consultations with students individually or in small groups. • By supervising the development of a personal portfolio and discussing it during individual meetings. <p>You are required to keep a personal record of your study progress from the first year until the end of the programme. This portfolio helps you to steer your personal and artistic development. It may contain materials relating to the various activities you undertake and any items you produce during the programme, which can range from a recording or an analysis of a performance, to a report for an elective subject or a personal evaluation of how your studies are progressing. It is important to choose a form that suits you so that the portfolio is something that you can identify with and are happy to work on. In other words, the portfolio should not be regarded as an additional burden, but as a study aid that could eventually serve as a professional calling card. For students in the performance and Art of Sound departments, the portfolio lays the groundwork for Preparation for Professional Practice, a course in the fourth year.</p> <p>More information can be found on intranet.</p> <p>Portfolio presentations are an integral and important part of this course. Students from the B2, B3 and B4 years present (part of) their work to all fellow students as well as to an Art of Sound staff team. After the presentation, all fellow students and the Art of Sound staff team ask questions and give feedback. Students of all Bachelor study years get in touch with each other and with each others work, and learn from each other and each others work. Students prepare for their exam presentation through being questioned and getting constructive feedback on their work.</p>
Objectives:	<p>At the completion of this course, the student:</p> <ul style="list-style-type: none"> • is able to reflect on your study progress and communicate about it with others; • is able to reflect on your personal and artistic growth by verbalizing it, in communication with others and through creating a professional portfolio; • is able to reflect on your role, task and position in the profession as well as in society, and can contribute to it. • has experience in presenting his own work to an audience;

	• is able to give and take constructive feedback.
Type of course:	Compulsory
Level:	B2
Duration:	Group meetings: to be decided by the tutor Private meetings: by appointment
Prior qualifications/prerequisites:	Portfolio and Tutoring 1
Teachers:	Bert Kraaijpoel
Credits:	2
Literature:	The 'Document studievoortgang en portfolio' (NL) and 'Document study progress and portfolio' (EN) can be found on intranet.
Work form:	Group and individual meetings
Assessment:	<p>Every year the tutor will assess the progress of the assigned students on the basis of the following criteria:</p> <ul style="list-style-type: none"> • Evidence that the student has monitored and improved his personal development in a professional, autonomous and critical manner. • The student has demonstrated this in the portfolio and the individual meetings with his tutor. <p>If your participation in the course and the development of your portfolio are regarded as sufficient, you will receive two credit points. NB It is not the quality of the portfolio itself, but the way in which you have used it as a 'reflective tool' that is assessed.</p>
Grading system:	Pass/Fail
Language:	English
Schedule, time, venue:	During the first year the tutors will organise a number of group sessions. Both you and your tutor can take the initiative for a meeting. Consultations with the tutor are confidential, but the tutor will inform the Head of Department in the event of study delays.
Information:	Tutoring coordinator (decaan@koncon.nl)

BACHELOR 2

ACADEMIC SKILLS

Course title:	Communication and Education 1
Osiris course code:	KC-AS-C&E1
Course content:	<p>In this course the student learns education, communication and research skills in preparation for professional practice. The educational skills that are learned are intended for use in professional practice in coaching musicians in a recording situation, for example, and coaching assistants or colleagues in a working situation. The communication skills being taught are geared to their application in professional practice, for example during interactions on the work floor and in business. Research skills are applied in professional practice in areas such as preparing and documenting projects, presenting your own or someone else's work and in setting up and executing comparative quality tests. The theory of project management and planning projects is dealt in preparation for its application in Communication and Education 2.</p> <p>To further explore professional practice, an historic overview is given of the music industry in the 20th and 21st centuries, including a report on current trends. In addition, the students investigate the various professional associations, trade associations and industry organisations in the field and give presentations on them.</p>
Objectives:	<p>At the completion of this course, the student:</p> <ul style="list-style-type: none"> • is able to convey information and communicate professionally; • possesses elementary research skills, including an ability to present and reflect on the process and results; • knows the most important representative groups and professional organisations in the music industry; • is aware of and knows about the most important trends in the music industry; • is capable of working on projects according to a plan.
Type of course:	Compulsory
Level:	B2
Duration:	12 lessons à 02:00
Prior qualifications/prerequisites:	-
Teachers:	Matthijs Ruijter
Credits:	1
Literature:	Reader from teacher
Work form:	Group lesson
Assessment:	<p>There are two tests:</p> <ol style="list-style-type: none"> 1. A presentation on a relevant professional organisation or trade association for the professional practice of the music technologist. The presentation covers what the organisation stands for, its structure and its activities. The importance of membership of the relevant organisation is explained from the perspective of a (recently graduated) music technologist. The presentation is assessed for content (quality and completeness) and presentation skills. At the beginning of the course, for each lesson one student is assigned to prepare and give a presentation. The first

	<p>presentation will take place after the lessons on presentation skills have been completed. Every student must have given a presentation before the last lesson of the course. The presentations will be assessed with pass/fail.</p> <p>2. An exam at the end of the course on all of the material covered during the lessons. This includes:</p> <ul style="list-style-type: none"> • PowerPoint presentations shown during the lessons, including the explanation and interpretation given by the teacher during the lessons; • the readers covered, including the explanation and interpretation given by the teacher during the lessons. <p>The exam will be assessed on both factual knowledge and the ability to apply the material covered. The outcome of the exam will be given in a numeric result. Both tests must be passed. The final grade is the grade obtained for the exam.</p> <p>A minimum attendance of 80% is required.</p>
Grading system:	Numeric
Language:	English
Schedule, time, venue:	See Asimut schedule
Information:	Paul Jeukendrup – Head of Art of Sound Department (p.jeukendrup@koncon.nl)

Course title:	Electro Acoustics 2
Osiris course code:	KC-AS-EA2
Course content:	<p>The course covers the electrical and acoustical properties of loudspeakers and loudspeaker systems and their applications. The following subjects are discussed:</p> <ul style="list-style-type: none"> • the theoretical functioning of loudspeakers and the consequences for the dispersion angle, the frequency response and the acoustical output of the loudspeaker; • the summation of two (partly) identical acoustical signals with and without time differences, interference, comb filtering; • basic prediction techniques of single and multiple loudspeaker systems using prediction software; • basic measurement techniques of single and multiple loudspeaker systems using dual channel FFT measurement systems; • a systematic approach to the evaluation of sound system designs in terms of coverage, (spatial) frequency response and direct to reverberant ratio.
Objectives:	<p>At the completion of this course, the student:</p> <ul style="list-style-type: none"> • understands the working principles of loudspeakers and loudspeaker systems; • understands the principles of the behaviour of sound and sound systems in an electro acoustical environment; • has basic skills in sound system design using prediction software; • has basic skills in sound system optimization using dual channel FFT measurement systems; • is able to evaluate a given sound system design at a basic level.
Type of course:	Compulsory
Level:	B2
Duration:	11 lessons à 02:00
Prior qualifications/prerequisites:	Electro Acoustics 1
Teachers:	Jan Panis
Credits:	1
Literature:	Bob McCarthy - Sound Systems: Design and Optimization (2nd or 3rd edition)
Work form:	Group lesson
Assessment:	There are two written tests during the course. Both tests have equal weight. A minimum attendance of 80% is required.
Grading system:	Numeric
Language:	English
Schedule, time, venue:	See Asimut schedule
Information:	Paul Jeukendrup – Head of Art of Sound Department (p.jeukendrup@koncon.nl)

Course title:	Mathematics and Physics 2
Osiris course code:	KC-AS-W&N2
Course content:	<p>The lessons explain the relationship between a number of elements of mathematics and physics. Where possible the link is made with applications in the theory of sound and music technology. The following subjects are covered:</p> <ul style="list-style-type: none"> • Linear algebra: systems of equations, applications from linear algebra, applications in electric networks, theorems of Kirchhoff's law and Thevenin's Theorem; • Differential calculus: meaning of differentiation, calculation rules, mathematical applications (determination of extremes and optimisation), physical applications (in dynamics and electric theory); • Integral calculus: meaning of integral, rules for calculating the integral, applications (sound intensity and electric fields); • Differential equations: meaning of differential equations, solution methods, applications in mass-spring systems; • Concepts in physics: magnetism and induction, applications: alternating current, self-induction coil, charging-decharging a capacitor; • Applications of complex numbers: expansion of calculation with fractions, complex numbers, transfer functions and filters.
Objectives:	<p>At the completion of this course, the student:</p> <ul style="list-style-type: none"> • can use systems of equations, Kirchhoff's Laws and Thevenin's Theorem to make calculations in electric circuits; • can apply the rules for differentiation to compute extreme values and derivatives of physical quantities; • can compute anti-derivative functions and can use integration to compute sound intensities and electric potentials; • understands the meaning of differential equations, can solve a few first order and second order differential equations and can apply this knowledge to mass-spring systems; • can use the basic principles of magnetism and electromagnetic induction and can make calculations in coils and capacitors; • can use complex numbers to compute alternating currents and voltages on electric filters; • can use transfer functions to make calculations on electric filters.
Type of course:	Compulsory
Level:	B2
Duration:	23 lessons à 02:00
Prior qualifications/prerequisites:	Mathematics and Physics 1
Teachers:	Ron Dames
Credits:	2
Literature:	R. A.C. Dames: Mathematics and Physics 2
Work form:	Group lesson
Assessment:	<p>There are two written tests during the course period:</p> <ul style="list-style-type: none"> • Test 1: chapter 1 - 11 of <i>Mathematics and Physics 2</i>, weighting 50%;

	<ul style="list-style-type: none"> • Test 2: chapter 12 - 20 of <i>Mathematics and Physics 2</i>, weighting 50 %. <p>All tests must be completed with a pass grade. A minimumy attendance of 80% is required.</p>
Grading system:	Numeric
Language:	English
Schedule, time, venue:	See Asimut schedule
Information:	Paul Jeukendrup – Head of Art of Sound Department (p.jeukendrup@koncon.nl)

Course title:	Music Technology 2
Osiris course code:	KC-AS-MT2
Course content:	<p>In this course students develop an insight into analog and digital electronics as applied in professional audio engineering. In preparation for studying digital audio networks, students study network technologies, including ethernet, LAN, WLAN, WAN, VLAN, routers, switches, internet Mac addresses, IP addresses and subnet masks. Among other things, students study the audio networks Dante, Ravenna, Ace, Rocknet, Optocore and MADI, followed by practical applications relating to the interfacing of equipment, working with connection software and programming and operating digital audio network equipment. There is a first written test on the material that has been covered.</p> <p>The operation of the microphone is explained by studying and analysing common circuits in microphones. The student then designs and builds his/her own microphone circuit and a microphone preamplifier. The electronic equipment thus produced is tested and measured. Students study the principles of wireless microphones, including intermodulation problems and solutions for them with frequency management software. There is a second written test on this material.</p>
Objectives:	<p>At the completion of this course, the student:</p> <ul style="list-style-type: none"> • is aware of how the technology of digital audio networks works and can operate equipment in which that technology is implemented; • is able to design a simple microphone circuit, including a simple microphone preamplifier; • is able to design and programme a small to medium-sized wireless system that can function faultlessly.
Type of course:	Compulsory
Level:	B2
Duration:	22 lessons à 02:00
Prior qualifications/prerequisites:	Music Technology 1
Teachers:	Jan Panis
Credits:	2
Literature:	Yamaha Sound Reinforcement Book, readers from various sources, handouts from the teacher.
Work form:	Group lesson
Assessment:	There are two written tests during the course period. Both tests have equal weight. A minimum attendance of 80% is required.
Grading system:	Numeric
Language:	English
Schedule, time, venue:	See Asimut schedule
Information:	Paul Jeukendrup – Head of Art of Sound Department (p.jeukendrup@koncon.nl)

Course title:	Room Acoustics 1
Osiris course code:	KC-AS-RA1
Course content:	In this course students study the principles of sound in a "free field" and in closed spaces (definitions, calculations with dB's, sound propagation and noise nuisance). Because of the direct relation between (the acting) sound transmission, sound absorption, sound transmission and sound reflection, students also learn about the principles of sound absorption (definitions, measurement methods, types of absorbent materials, applications), the principles of sound insulation (definitions, measurement methods, mass law, coincidence effect, double walls, impact sound, flanking sound transmission) and the principles of room acoustics (definitions, measurement and calculation, room acoustic parameters, speech intelligibility and Just Noticeable Differences).
Objectives:	At the completion of this course, the student: <ul style="list-style-type: none"> • knows the decibel scale and is able to perform decibel calculations; • knows the principles of sound absorption and sound insulation and is able to perform basic calculations; • knows the difference between direct and diffuse field and is able to predict the prevailing sound level; • knows the minimum requirements for music and speech transfer; • knows the existence of a great number of room acoustic parameters for speech and music and is able to perform global calculations with those parameters; • is able to read (critical) manufacturer product data, advertising brochures, room acoustic requirements and room acoustic standards; • is aware of myths and facts related to room acoustics.
Type of course:	Compulsory
Level:	B2
Duration:	8 lessons à 02:00 1 lesson à 8
Prior qualifications/prerequisites:	-
Teachers:	Constant Hak
Credits:	1
Literature:	Handouts
Work form:	Group lesson
Assessment:	There is one written test at the end of the course. A minimum attendance of 80% is required.
Grading system:	Numeric
Language:	English
Schedule, time, venue:	See Asimut schedule
Information:	Paul Jeukendrup – Head of Art of Sound Department (p.jeukendrup@koncon.nl)

Course title:	Signals and Systems 1
Osiris course code:	KC-AS-S&ST1
Course content:	These classes are designed to provide a solid background for dealing practically with the physical and mathematical representations of sound signals and sound processing systems. During this course students study standard topics like the decibel, sampling, fundamental periodicity and the build-up of acoustical wave fields. The second semester is dedicated to Fourier Analysis.
Objectives:	At the completion of this course, the student: <ul style="list-style-type: none"> • is able to describe the basic properties of a sound signal; • has an in-depth understanding of the Fourier Transform and is able to apply it.
Type of course:	Compulsory
Level:	B2
Duration:	36 lessons à 02:30
Prior qualifications/prerequisites:	-
Teachers:	Peter Pabon
Credits:	4
Literature:	Chapters 1, 2 and 4 from: Stan Tempelaars, Signal Processing: Speech and Music, (Lisse: Swets and Zetlinger, 1996). Additional PDF's will be distributed by email.
Work form:	Group lesson
Assessment:	There is a written test at the end of the course (weight 67%) and a practical assignment (weight 33%). A minimum of 80% attendance is required.
Grading system:	Written test: numeric; Practical Assignment: Pass/Fail
Language:	English
Schedule, time, venue:	See Asimut schedule
Information:	Paul Jeukendrup – Head of Art of Sound Department (p.jeukendrup@koncon.nl)

BACHELOR 2**MINORS OR ELECTIVES**

Course title:	Electives B2
Osiris course code:	KC-EL-EL2
Course content:	For the course descriptions of all electives, please see the Electives Guide on Intranet.
Objectives:	At the completion of this course, the student: n/a
Type of course:	n/a
Level:	B2
Duration:	n/a
Prior qualifications/prerequisites:	n/a
Teachers:	n/a
Credits:	6
Literature:	-
Work form:	n/a
Assessment:	n/a
Grading system:	n/a
Language:	English
Schedule, time, venue:	See Asimut schedule
Information:	n/a

BACHELOR 2

MUSICIANSHIP SKILLS

Course title:	Aural Skills, Writing Skills and Analysis 2
Osiris course code:	KC-TA-ATV2
Course content:	<p>Following the first year classes in Aural Skills and Analysis students further develop their practical musicianship skills needed for high quality music making and music reading: stylistic understanding, melodic, polyphonic, harmonic and analytical hearing, musical memory and imagination, music reading and writing skills. Students practice these musicianship skills through singing, playing, writing and listening as an everyday musical 'warming up'. Reading scores is trained on a higher level than during the first year, scores become more complex. Their cognitive development is seen as a result of these practical skills, connected to the musical repertoire that again is gradually becoming more complex during the course. Other repertoire than the student's own repertoire can be studied. It can be chosen from different styles and time periods. Solfège skills are further developed so that students as a group or individually can 'sound' music through singing and playing, with good intonation and musical understanding. In analysis activities compositions are build up from the background elements in a process led by the teacher, so that students understand musical constructs and concepts from the inside of a composition. The aural skills and analysis activities are not only 'tools', but represent artistic value in themselves. Students take more initiative in choosing repertoire and practical assignments.</p>
Objectives:	<p>At the completion of this course, the student:</p> <ul style="list-style-type: none"> • shows an intermediate level of skills in musicianship and musical literacy, and is beginning to integrate these skills in their own practising and rehearsing techniques; • Can read scores on an intermediate level; • is showing a more developed musical personality in their music making; • has an intermediate understanding of elementary concepts in music (melody, harmony, counterpoint, homophony, polyphony, (a)tonality, modality, texture); • is able to use music theoretical terminology for musical concepts as a professional musician; • has knowledge of what has been learned and is able to reflect on it.
Type of course:	Compulsory
Level:	B2
Duration:	36 lessons à 03:20
Prior qualifications/prerequisites:	Aural Skills, Writing Skills and Analysis 1
Teachers:	Patrick van Deurzen
Credits:	13
Literature:	tba
Work form:	Group lesson
Assessment:	<p>Attendance 80%; Weekly evaluation of assignments and activities; Half-term evaluation in December; Exam in June:</p> <ul style="list-style-type: none"> • Portfolio of studied repertoire, assignments, literature;

	<ul style="list-style-type: none"> • Solfège performance of all second year groups. <p>Students perform music showing their musicianship skills: stylistic understanding, melodic, polyphonic, harmonic and analytical hearing, musical memory and imagination, music reading and writing skills.</p>
Grading system:	Numeric
Language:	English
Schedule, time, venue:	See Asimut schedule
Information:	Suzanne Konings – Head of Music Theory Department (s.konings@koncon.nl)

Course title:	History of Music 2
Osiris course code:	KC-TH-MG2
Course content:	Lectures about the outlines of music history stretching from the Middle Ages until the late 19th century. The first semester concerns the Middle Ages until the baroque era. The second semester concerns the later part of the 18th, and the 19th century.
Objectives:	At the completion of this course, the student: <ul style="list-style-type: none"> • has insight in and an overview of the most important developments in music from the Middle Ages until the 19th century; • is able to communicate about this with colleagues and laymen.
Type of course:	Compulsory
Level:	B2
Duration:	36 lessons à 01:15
Prior qualifications/prerequisites:	-
Teachers:	Peter Lurvink
Credits:	3
Literature:	- J. Peter Burkholder, Donald Jay Grout en Claude V. Palisca, 'A History of Western Music' (W.W. Norton & Company, New York/London), 8th edition or newer version (please don't use older versions). - Material assigned by teacher, mainly copies of score fragments - On the KC Intranet page, students can find the musical fragments that are used in class, as well as lyrics and translations of vocal works, video's etc. It also contains an overview of the chapters from Grout that need to be studied, and mentions the exam dates. Intranet: click Students -> Education -> Departments -> Music Theory -> Music History Documents
Work form:	Group lesson
Assessment:	The course is concluded with a written exam at the end of each semester. For both exams, the grade obtained should be a minimum of 5.5.
Grading system:	Numeric
Language:	English
Schedule, time, venue:	See Asimut schedule
Information:	Suzanne Konings – Head of Music Theory Department (s.konings@koncon.nl)

Course title:	Rhythm Class 2
Osiris course code:	KC-TA-RP2
Course content:	Rhythm is style related but for all musicians it is important to develop their skills in the field of rhythm as widely as possible. Hence, in Rhythm Class 2, alongside more complex classical rhythm skills, attention is also devoted to the use of and ideas about rhythm in jazz music and non-western music. The student is able to perform the material dealt with in class. This doesn't solely need to be a prima vista, but may (partly) be rehearsed before the exam.
Objectives:	At the completion of this course, the student: <ul style="list-style-type: none"> • is able to put the skills obtained in Rhythm Class 1 into use in a broader musical repertoire; • is able to translate the insight and practical control to his own instrument, his study process and the performance practice.
Type of course:	Compulsory
Level:	B2
Duration:	36 lessons à 00:50
Prior qualifications/prerequisites:	-
Teachers:	Niels van Hoorn
Credits:	2
Literature:	Duos, trios and quartets and exercises in pieces for one voice to be handed out by the teacher. Syllabus Niels van Hoorn.
Work form:	Group lesson
Assessment:	Practical exam. Compulsory attendance: 80% The 2 EC points for Rhythm Class 2 are being obtained if a minimum score of 5.5 is obtained for the exam.
Grading system:	Numeric
Language:	English
Schedule, time, venue:	See Asimut schedule
Information:	Suzanne Konings – Head of Music Theory Department (s.konings@koncon.nl)

BACHELOR 3

ARTISTIC DEVELOPMENT

Course title:	Recording 3
Osiris course code:	KC-AS-REC3
Course content:	<p>The first two years of the four-year Recording course are mandatory for all students. In the third and fourth years the course is compulsory for students who have chosen Recording as their specialisation; for the other students it is an elective course as part of the minor in Recording.</p> <p>In the Recording course the student receives practical instruction in the professional recording process, whereby a musical event is recorded as it occurred in space and time in such a way that on reproduction of this recording the sound and musical experience of the original event are approached as closely as possible. These processes are typical of recordings in the classical and jazz repertoire. The student develops an audio-technical vision that corresponds with the relevant musical given.</p> <p>The student learns to use the common stereo main system techniques AB, XY, MS, ORTF and OHNO in practice. The sound properties of the different systems are analysed using the parameters of spatiality, timbre and source localisation as the main assessment criteria. The influence on the sound of the positioning of the main system in large and small spaces and in relation to the source is studied in order to be able to choose the correct main system in varying acoustical and musical circumstances. The student learns how to use support microphones for soloists, instruments and instrument groups in small and large settings.</p> <p>The student learns to work with various DAW platforms, with the emphasis on:</p> <ul style="list-style-type: none"> • the organisation of multitrack projects; • creating a structural set-up for a multitrack project; • editing musical material performed by small and large ensembles; • creating a musical balance that corresponds with the musical event; • keeping complete and accurate records of the project. <p>Instrument clinics and ensemble clinics teach the students in a very direct way about the source. Various common instrument groups are studied in a practical fashion, with a focus on sound, historical development, the mechanics of the instruments and the function of the instrument and the playing techniques used in different musical styles. Various forms of ensemble common in the classical, contemporary or jazz repertoire are closely studied in a practical manner, with the focus on sound, historical development, repertoire and the usual arrangements on the stage.</p> <p>During the lessons professional recording situations of varying complexity are simulated. The student follows the entire recording process in a team under the teacher's supervision. Elements of this process are preparing a score, drafting a recording plan, holding the recording session, keeping administrative records of the project, communicating with musicians and other stakeholders, editing the</p>

	<p>recording, mixing the recording and delivering the end product within a prescribed deadline.</p> <p>During the first three years of the course a distinction is made between making recordings in large spaces (concert hall recording) and making recordings in small spaces (studio recording).</p> <p>Depending on the size of the group, the teacher may decide to divide the students into smaller groups during the lesson if that will benefit the teaching process; the student will then have less contact time, but it will be more intensive.</p>
Objectives:	<p>At the completion of this course, the student:</p> <ul style="list-style-type: none"> • has an intermediate knowledge of microphone types and their applications in music recording; • has an intermediate knowledge of stereo main systems and their applications in music recording; • is able to make the right choice for a microphone type and microphone position for a given acoustical source at an intermediate level; • is able to make the right choice for a stereo main system in given acoustical circumstances at an intermediate level; • is able to work with DAW platforms at an intermediate level; • has intermediate mixing and editing skills; • has intermediate communication skills in a music recording situation.
Type of course:	Compulsory
Level:	B3
Duration:	20 lessons à 02:00
Prior qualifications/prerequisites:	Recording 2
Teachers:	Daan van Aalst Micha de Kanter
Credits:	4
Literature:	-
Work form:	Group lesson
Assessment:	<p>There are two practical assignments at the end of the course period. Both assignments have equal weight:</p> <p>1. Concert Hall Recording: The student will make a project setup, edits and a mixdown of a session multitrack concert hall recording of a small ensemble with DAW software (Pyramix) and hand in a stereo mix, a project file and the project administration. The mix, editing and project structure will be assessed on applied techniques as discussed in class as well as a musically balanced mix. The project has to be completed by the student as home work. The studio facilities (Control Room) will be used for this purpose. The assignment has to be made available to the teacher through the e-portfolio of the student within 14 days after the last concert hall recording lesson.</p> <p>2. Studio Recording: The student will make a project setup, edits and a mixdown of a session multitrack studio recording of a small ensemble with DAW software (ProTools) and hand in a</p>

	<p>stereo mix, a project file and the project administration. The mix, editing and project structure will be assessed on applied techniques as discussed in class as well as a musically balanced mix. The project has to be completed by the student as home work. The studio facilities (Studio B) will be used for this purpose. The assignment has to be made available to the teacher through the e-portfolio of the student within 14 days after the last studio recording lesson.</p> <p>A minimum attendance of 80% is required.</p>
Grading system:	Numeric
Language:	English
Schedule, time, venue:	See Asimut schedule
Information:	Paul Jeukendrup – Head of Art of Sound Department (p.jeukendrup@koncon.nl)

Course title:	Producing 3
Osiris course code:	KC-AS-PRD3
Course content:	<p>The first two years of the four-year course in Producing are mandatory for all students. In the third and fourth years the course is compulsory for students who have chosen Producing as their specialisation; for the other students the course is an elective in the minor in Producing.</p> <p>The Producing course gives the student a practical grounding in the professional music production process, in which existing or pre-recorded material has to be combined and edited using technology to produce an end result that on reproduction has not previously taken place as such in terms of space and time. These processes are typical of music productions in the contemporary popular repertoire. The student develops an audio-technical vision that corresponds with the relevant musical given.</p> <p>The student learns various uses of microphones that are customary in music production, whereby maximum phase coherence and/or source separation is achieved by means of a combination of microphone placement, directional characteristic and acoustic solutions.</p> <p>In the application of music production techniques a distinction is made between the creative and the supporting role that technology plays in music production and the function of common production techniques in the arrangement is studied. The student learns music production techniques such as editing, mixing, spectral processing, dynamic processing, spatial processing, time and pitch processing, (mix) automation, midi & audio programming, applied sound synthesis, sampling, re-amping and sound replacement.</p> <p>The student learns to work in both an analog and a digital music production environment, with the emphasis on:</p> <ul style="list-style-type: none"> • the organisation of multitrack projects; • creating a structural set-up for a multitrack project; • combining and editing musical material in a layered structure into a new arrangement; • creating a musical balance that corresponds with the musical event; • keeping complete and accurate administrative records of the project. <p>Instrument clinics and ensemble clinics teach the students in a very direct way about the source. Various common instrument groups are studied in a practical fashion, with a focus on sound, historical development, the mechanics of the instruments and the function of the instrument and the playing techniques used in different musical styles and the use of different microphone techniques in specific musical situations.</p> <p>During the lessons professional music production situations of varying complexity are simulated. The student follows the entire music production process as part of a team under the teacher's supervision. Elements of this process are identifying and compiling the musical material, drafting a music production plan, conducting recording sessions, keeping administrative records of the project and</p>

	<p>communicating with musicians and other stakeholders, producing the arrangement (including combining and editing the musical material), producing the mix and delivering the end product within a prescribed deadline.</p> <p>Depending on the size of the group, the teacher may decide to divide the students into smaller groups during the lesson if that will benefit the teaching process; the student will then have less contact time, but it will be more intensive.</p>
Objectives:	<p>At the completion of this course, the student:</p> <ul style="list-style-type: none"> • has an intermediate knowledge of microphone applications in music production; • has an intermediate knowledge of music production techniques as applied in music production; • is able to work in an analog and a digital music production environment at an intermediate level; • has intermediate editing and mixing skills; • is able to make a correct choice for music production techniques in a given musical situation at an intermediate level; • has intermediate arranging skills as applied in a music production situation; • has intermediate communication skills in a music production situation.
Type of course:	Compulsory
Level:	B3
Duration:	20 lessons à 02:00
Prior qualifications/prerequisites:	Producing 2
Teachers:	Maurice Bom
Credits:	4
Literature:	-
Work form:	Group lesson
Assessment:	<p>There is one practical assignment: the realisation of a music production, to be delivered on a standard audio format along with proper and complete project documentation of the production (meta-) data:</p> <ul style="list-style-type: none"> • song title • composer(s), arranger(s) • performer(s) • line up • time planning • track list • patch list (including microphone types). <p>The audio file and documentation have to be handed in with the teacher within 14 days after the last lesson. The end result will be evaluated in terms of musical creativity, creativity of the mix and quality of the documentation.</p>
Grading system:	Numeric
Language:	English
Schedule, time, venue:	See Asimut schedule
Information:	Paul Jeukendrup – Head of Art of Sound Department (p.jeukendrup@koncon.nl)

Course title:	Sound Reinforcement 3
Osiris course code:	KC-AS-SR3
Course content:	<p>The first two years of the four-year course in Sound Reinforcement are mandatory for all students. In the third and fourth year the course is compulsory for students who have chosen Sound Reinforcement as their specialisation; for the other students the course is an elective as part of the minor in Sound Reinforcement.</p> <p>The Sound Reinforcement course gives the student a practical grounding in the professional sound reinforcement process when, for musical and/or acoustic reasons, the sound at a musical event has to be adjusted with the help of technology. Characteristic of this situation is that the reproduction occurs simultaneously with and in the same space as the musical action. These situations arise at concert recitals and theatre performances in various musical styles and acoustic conditions. The student develops an audio-technical vision that corresponds with the relevant musical given.</p> <p>The timbral properties of different loudspeaker setups are analysed in spaces with different acoustic and architectural properties. The influence of a loudspeaker setup on spatiality, timbre and source localisation are studied in order to learn how to make the correct choice of loudspeaker arrangement under various musical and acoustic conditions. A distinction is made between single and composite loudspeaker systems, using both point source and line source subsystems.</p> <p>The student learns about various customary microphone applications for sound reinforcement, with a distinction being made between overhead miking, close miking and clip-on miking. The impact of each application in terms of timbre, cross-talk and feedback are studied in order to learn the correct application to choose in different acoustic and musical circumstances. The student learns to work with both wireless and wired technologies.</p> <p>The student learns to work with analog and digital mixing platforms, with the emphasis on:</p> <ul style="list-style-type: none"> • the organisation of the signal distribution in a mixing platform; • creating a functional connection structure between source, mixing platform and destination; • actively operating the mixing platform, with technical choices being based on considerations of a musical nature; • creating a musical balance that corresponds with the musical event; • keeping complete accurate administrative records of the project. <p>Professional sound reinforcement situations of varying complexity are simulated during the lessons. The student follows the entire amplification process as part of a team under the teacher's supervision. This process includes studying the artistic event, designing and realising a loudspeaker and microphone setup that corresponds with the musical event, performing a sound check, creating an aesthetically and functionally correct sound balance in the hall, creating a functional stage sound, keeping records of the project and communicating with musicians and other stakeholders. The student learns to work safely and under</p>

	<p>time pressure.</p> <p>Depending on the size of the group, the teacher may decide to divide the students into smaller groups during the lesson if that will benefit the teaching process; the student will then have less contact time, but it will be more intensive.</p>
Objectives:	<p>At the completion of this course, the student:</p> <ul style="list-style-type: none"> • has an intermediate knowledge of microphone types and their applications in sound reinforcement; • has an intermediate knowledge of loudspeaker systems and their applications in sound reinforcement; • is able to make a correct choice for a loudspeaker system and its setup for a given artistic event in a given acoustical situation at an intermediate level; • is able to make a correct choice for a microphone type and its positioning for a given source in a given acoustical situation at an intermediate level; • is able to work with analog and digital mixing platforms at an intermediate level; • is able to work with analog and digital mixing platforms at a basic to intermediate level; • is able to realize a functioning mobile sound reinforcement system of intermediate complexity within certain time limits; • has intermediate mixing and monitor mixing skills; • has intermediate communication skills in a sound reinforcement situation.
Type of course:	Compulsory
Level:	B3
Duration:	20 lessons à 02:00
Prior qualifications/prerequisites:	Sound Reinforcement 2
Teachers:	Rob van der Meijs
Credits:	4
Literature:	-
Work form:	Group lesson
Assessment:	<p>There is one practical assignment at the end of the course. The student will hand in documented materials of a simple to complex sound reinforcement project that has been initiated and performed by the student. The project meets the following requirements:</p> <ul style="list-style-type: none"> • minimum 12 and maximum 36 inputs (mainly acoustical sources); • stereo or LCR PA output; • minimum 4 monitor feeds. <p>The materials will cover three parts:</p> <p>1. The student will hand in the digital mixing platform session that has been used during the performance of the project. The session will be assessed on:</p> <ul style="list-style-type: none"> • session structure; • mixer layout; • patching; • routings.

	<p>2. The student will hand in the complete project administration as has been prepared before and during and corrected after the performance of the project. The documentation will be assessed on the quality and completeness of the:</p> <ul style="list-style-type: none"> • equipment list; • patch list including microphone choices; • loudspeaker plan(s); • stage plan(s); • time schedule. <p>3. The student will record (part of) the performance of the project on a common digital multitrack recording platform (48 kHz, 24 bit, minimum 5 minutes of music). The recording is made in such a way that the audio files can be used for a virtual sound check with the mixer session as mentioned under point 1. The student will hand in those audio files in a data-compressed format (zip. file) with a maximum file size of 1.5 GB.</p> <p>All materials will be made available to the teacher through the e-portfolio of the student within 14 days after the last lesson.</p> <p>A minimum attendance of 80% is required.</p>
Grading system:	Numeric
Language:	English
Schedule, time, venue:	See Asimut schedule
Information:	Paul Jeukendrup – Head of Art of Sound Department (p.jeukendrup@koncon.nl)

Course title:	Classical Recording 2
Osiris course code:	KC-AS-CR2
Course content:	<p>In the course Classical Recording, students initially learn to recognise the specific sound of individual instruments and ensembles in various musical styles in the context of recorded music. In the lessons students listen to examples of various soloists, ensembles in small and large settings and orchestras. Orchestra and ensemble settings that are dealt with include the string quartet, piano trio, woodwind quintet and the symphony orchestra in American and Viennese settings.</p> <p>Secondly, the course focuses on Natural Harmonics, Tuning and Temperament in relation to timbre, building scales and performance practice.</p> <p>Thirdly, students develop an understanding of the mechanics and acoustic properties of individual musical instruments. The practical examples from the instrument clinics in the course Recording 2 will be used to explore the various instrument groups (string, wind, brass, percussion and keyboard instruments) in more depth.</p> <p>Fourthly, the course focuses on score analysis in relation to recording practice. Among other things, students develop a notation system, work with transpositions, dynamic indications and the connection between noted and performed material and learn to prepare an editing plan.</p>
Objectives:	<p>At the completion of this course, the student:</p> <ul style="list-style-type: none"> • can name common and less common compositions of large- and medium-sized ensembles; • knows the usual stage arrangements for large and medium-sized ensembles and the consequences for the choice of microphone setup; • can make a connection between the score for a medium-sized to large ensemble and that which sounds during a performance of the score; • can make an editing plan from the score for a medium-sized to large ensemble and has developed a notation system for it.
Type of course:	Compulsory
Level:	B3
Duration:	12 lessons à 02:00
Prior qualifications/prerequisites:	Classical Recording 1
Teachers:	Daan van Aalst
Credits:	2
Literature:	The Science of Sound - Rossing, Moore, Wheeler (ISBN 9781292039572). (copies of) scores, handouts
Work form:	Group lesson
Assessment:	There is a practical assignment at the end of the course. Students will hand in an edited recording project from the Recording 3 course, including documentation, and are assessed on their score reading skills and knowledge of notation techniques.

	A minimum attendance of 80% is required.
Grading system:	Numeric
Language:	English
Schedule, time, venue:	See Asimut schedule
Information:	Paul Jeukendrup – Head of Art of Sound Department (p.jeukendrup@koncon.nl)

Course title:	Electronic Music Production 2
Osiris course code:	KC-AS-EMP2
Course content:	<p>The student learns about the most important genres of modern electronic music since 1970. Artists, and the influence of production tools and techniques on their musical output will be studied. Genres to be addressed are: Ambient, House, Techno, Trance, Hiphop, Triphop, Drum'n'Bass, Dubstep/Grime, Hardcore/Gabber, EDM.</p> <p>Both rhythm and timbre play an important role in modern electronic music. This is reflected in the course by applied techniques in the field of beat programming and sound design. The student produces (drum) beats for different genres (House, Drum'n'Bass, Techno, Hiphop). Different signature sounds from various genres will be analyzed and copied/imitated/improved (Trance Lead, Soft Pad, Sub Bass, Wobble Bass, analog drum sounds) with the use of Ableton/Logic Pro plug-ins, VSTs like Massive, Absinth, sampling/recording or analog synths. As a practical exercise, the student will build a dance track, both in the classroom and as an individual assignment.</p> <p>The student will be analyzing sound layers, production techniques and arrangements (intro, build-up, roll, breakdown, break, drop). Each student chooses an electronic music genre as his specialty subject. He will give an in-depth presentation of that genre: history, artists, technical/historical/social aspects, audio examples. He will also make a complete track production in that musical style.</p> <p>Electronic music and sounddesign for film/commercial will be addressed shortly. The student makes music for a 30 sec TV commercial: with only a short art director's briefing one has to make a pitch for a real commercial TV spot, preferably in cooperation with a party in that specific field (Massive, Sizzer).</p> <p>With all exercises and practical assignments the focus is not only on technical aspects but also on musical and sound awareness.</p>
Objectives:	<p>At the completion of this course, the student:</p> <ul style="list-style-type: none"> • understands different production techniques typical for important electronic music styles, and is able to recognise musical elements typical for certain genres (signature sounds, bpm, beat, arrangement, syncopation/swing); • is familiar with essential electronic instruments from the last decades (Mini Moog, Korg MS20, DX7, Roland drum machines: TR-909,808,606, TB-303 Bassline, MPC family); • is able to program synthesizers and drum machines (analog, digital and virtual) for certain electronic music styles; • knows the most important musical styles in late 20th century electronic music production and is able to produce a track in at least one of those musical genres.
Type of course:	Compulsory
Level:	B3
Duration:	12 lessons à 02:00
Prior qualifications/prerequisites:	Electronic Music Production 1

Teachers:	Stefan Schmid
Credits:	2
Literature:	Ableton Live, Logic Pro, free choice DAW
Work form:	Group lesson
Assessment:	<p>There is one practical home assignment:</p> <ul style="list-style-type: none"> • 1 student-chosen electronic music style with track production, including a 30 min. presentation about the genre. This assignment has to be handed in during the progress of the course, in consultation with the teacher. <p>A minimum attendance of 80% is required.</p>
Grading system:	Numeric
Language:	English
Schedule, time, venue:	See Asimut schedule
Information:	Paul Jeukendrup – Head of Art of Sound Department (p.jeukendrup@koncon.nl)

Course title:	Instrument 3
Osiris course code:	KC-AS-BI3
Course content:	<p>The student follows the Instrument course throughout the four years of the programme. The aim of the instrumental or vocal lessons is to support the development of the student's playing or singing skills and musicality in the main subject. The course assists the music technologist in assessing and communicating with musicians about the artistic and technical aspects of a performance. It covers aspects such as musical interpretation, quality of performance, degree of difficulty, tempo, purity and, in the case of jazz / pop, improvisational skills.</p> <p>At the time of registration for the entrance exam, the student has already made a choice for either classical or jazz / pop. In both streams, the student practices the technical skills by playing etudes and exercises.</p> <p>Although the aim is to achieve the highest possible technical standard, the level of progress is more important than the absolute technical level. For the two streams, musical development is defined as follows:</p> <p>Classical: The student plays a varied and multifaceted repertoire in which compositions from different style periods of Western music history are represented. The student learns to interpret and perform the various styles.</p> <p>Jazz / Pop: The student plays a varied and multifaceted repertoire in which improvisations and arrangements from various streams in Western jazz and/or pop music are represented. The student learns to improvise in the various streams.</p>
Objectives:	<p>At the completion of this course, the student:</p> <ul style="list-style-type: none"> • is able to play an instrument or to sing at a satisfactory musical and technical level; • displays progress in musical and technical terms, (a potential for) musical growth, musical diversity and (for jazz and pop) the ability to improvise; • classical: is able to interpret and perform a diverse and multifaceted repertoire in which compositions from various style periods of Western music history are represented at an intermediate level; • jazz / pop: is able to interpret and perform a diverse and multifaceted repertoire in which improvisations and arrangements from various streams of Western jazz and/or pop music are represented at an intermediate level.
Type of course:	Compulsory
Level:	B3
Duration:	34 lessons à 00:40
Prior qualifications/prerequisites:	Instrument 2
Teachers:	Daniel Lottersberger Jack Pisters Instrumental and Vocal Teachers
Credits:	9

Literature:	Sheet music
Work form:	Individual lesson
Assessment:	<p>As a rule, the transitional exam in Instrument 3 takes place in May of the second year of the course (the exam lasts 20 minutes).</p> <p>The assessment criteria for the Instrument 3 transitional exam are:</p> <ul style="list-style-type: none"> • musical development; • instrumental/vocal technical development; • development of ability to work independently; • for jazz / pop: ability to improvise. <p>The Instrument 3 (Classical) transitional exam consists of the live performance in front of a committee of a programme comprising one or more etudes, together with three assigned pieces from three different style periods. The student may bring an accompanist to the exam. The course does not provide accompanists.</p> <p>The Instrument 3 (jazz, pop) transitional exam consists of the live performance in front of a committee of a programme comprising one or more etudes, together with three assigned pieces that differ in style and tempo. The student must arrange his own accompanying musicians and the necessary instruments/ backline. The course does not provide accompanists.</p>
Grading system:	Numeric
Language:	English
Schedule, time, venue:	Schedule to be agreed upon with the teacher
Information:	Paul Jeukendrup – Head of Art of Sound Department (p.jeukendrup@koncon.nl)

Course title:	Listening Skills 3
Osiris course code:	KC-AS-LS3
Course content:	<p>In the three-year course in Listening Skills the student is trained to listen to and speak accurately about sound specifically as it applies to the creation, assessment, composition and editing of music productions. A distinction is made in that context between Critical Listening Skills and Analytical Listening Skills:</p> <p>Critical Listening Skills are defined as the ability to listen technically, such as:</p> <ul style="list-style-type: none"> • recognising frequencies (expressed in Hertz); • recognising (resonance) frequency ranges (expressed in Hertz); • recognising loudness (expressed in dB SPL); • recognising positioning in space by means of differences in intensity; • recognising positioning in space by means of time differences; • recognising spatiality (properties of natural or synthetic acoustics); • recognising different types of distortion (linear and non-linear distortion). <p>Critical Listening Skills are trained with technical examples of sounds independent of a musical context.</p> <p>Analytical Listening Skills are defined as the capacity to listen analytically, such as:</p> <ul style="list-style-type: none"> • recognising the pitches of the various elements present in a complex signal (music production); • recognising the spectral content of the various elements present in a complex signal (music production); • recognising the relative sound levels of the various elements present in a complex signal (music production); • recognising the spatial properties of the various elements present in a complex signal (music production); • establishing connections between the musical context of a complex signal and all the aforementioned parameters on the basis of an analysis of the form of the musical material. <p>Analytical Listening Skills are trained with examples of musical sounds. Both existing audio materials and material produced by the student in the main subject lessons are analysed and discussed by the group during the lessons. Evaluation forms distributed during the lesson are used for this purpose.</p> <p>The acoustic, electro-acoustic, and psycho-acoustic aspects of the listening environment are dealt with by means of experimenting with and assessing various monitor set-ups and listening positions in relation to the acoustic and architectural properties of the space.</p>
Objectives:	<p>At the completion of this course, the student:</p> <ul style="list-style-type: none"> • is able to recognize frequencies with a resolution of 1/3rd octave; • is able to recognize (resonance-) frequency ranges with a resolution of 1/3rd octave; • is able to recognize loudness level differences with a resolution of 3 dB SPL; • is able to evaluate spatiality (natural or synthetic) in a complex audio signal at an advanced level; • is able to recognize and evaluate several kinds of linear and non-linear distortion in recorded musical material due to technical imperfections during the recording or reproduction process at an advanced level;

	<ul style="list-style-type: none"> • is able to assess recorded musical material in terms of spatial image, ambience, frequency response, musical balance, dynamic range, artistic merit and technical merit at an advanced level; • is able to assess quality aspects of individual components or storage media as typically used in the audio industry by ear at an advanced level.
Type of course:	Compulsory
Level:	B3
Duration:	12 lessons à 02:00
Prior qualifications/prerequisites:	Listening Skills 2
Teachers:	Matthijs Ruijter
Credits:	1
Literature:	William Moylan - Understanding and Crafting the Mix: The Art of Recording. Jason Corey - Technical Ear Training
Work form:	Group lesson
Assessment:	There are two written tests during the course period. Both tests have equal weight. A minimum attendance of 80% is required.
Grading system:	Numeric
Language:	English
Schedule, time, venue:	See Asimut schedule
Information:	Paul Jeukendrup – Head of Art of Sound Department (p.jeukendrup@koncon.nl)

Course title:	Main Subject B3
Osiris course code:	KC-AS-HV3
Course content:	<p>The individual main subject lessons are intended to give personal supervision to the student in his professional development and to guide the student in preparation for the test / exam at the end of the academic year. During these lessons the student's portfolio is discussed and he receives feedback on his work. This helps the student to develop a personal audio-technical vision of sound which corresponds with the relevant musical event. The student is advised on the choice of projects and the choice of a particular working method. In that context, the preparation, planning and implementation of the project, the communication during the project and the need to keep adequate administrative records of the project are explored in more depth.</p> <p>The individual main subject lessons are arranged according to the specialisation chosen at the end of the first year of the course and the programme is adapted accordingly.</p>
Objectives:	<p>At the completion of this course, the student:</p> <ul style="list-style-type: none"> • can present a representative and varied programme of music recordings, music productions or sound reinforcement projects at an intermediate level; • can analyse and provide feedback on their own and other person's work to an intermediate level; • can work independently and professionally in a music recording project, music production project or sound reinforcement project, both inside and outside the conservatoire, at an intermediate level; • has developed an outspoken artistic vision of the application of technology in an artistic environment at an intermediate level.
Type of course:	Compulsory
Level:	B3
Duration:	32 lessons à 00:40
Prior qualifications/prerequisites:	Main Subject Ba2
Teachers:	Daan van Aalst Attie Bauw Maurice Bom Micha de Kanter Jan Panis
Credits:	5
Literature:	-
Work form:	Individual lesson
Assessment:	<p>At the end of the second year of the course the individual student's progress in the main subject will be assessed by means of a presentation of the student's work to a committee of teachers. This exam will generally take place in June of the third year of the course (the exam lasts 60 minutes).</p> <p>The aim of the transitional exam III-IV is:</p> <ul style="list-style-type: none"> • to assess the student's progress in the main subject on the basis of his/her e-

portfolio;

- assess the student's creativity and audio-technical insight on the basis of the work presented;
- assess the student's efforts and work ethic on the basis of his/her e-portfolio.

In total, three projects will be presented with a report and audio material as included in the student's e-portfolio:

- two projects of the student's own choice relating to his/her chosen specialisation and of which the student was team leader. Those projects will be documented in a report (pdf) as specified in the Communication and Education classes;
- one project that is selected by the committee from the student's e-portfolio at the exam.

The presentation must contain relevant audio and possibly video examples from which the examination committee can make an assessment of the candidate's technical, artistic and entrepreneurial competences.

In preparation for the presentation the exam candidate must provide each individual member of the committee with a working (possibly temporary) hyperlink to the e-portfolio and the pdf project reports no later than 14 days before the presentation. The student's e-portfolio contains a table of contents mentioning all relevant projects and clearly showing which projects the student took part in as team leader.

During the exams the student will submit an audio CD with the listening examples for the archives. The CD must be accompanied by documentation of all relevant information concerning composers, titles, performers, data of recording, recording locations and names and functions of those who worked on the production.

The requirements for the presentation III-IV are different for each of the three specialisations.

For the specialisation **Recording**, a recorded programme of a varied repertoire must be presented (administration of the score and the editing must be submitted at the exam) via a regular sound medium of respectively:

1. An edited session recording of a solo work, possibly with one or more accompanying instruments (solo, duo or trio setting);
2. A multitrack recording of an ensemble piece (at least a trio or larger formation);
3. A live recording of a concert with audience of a larger formation (i.e. a percussion ensemble, chamber orchestra, jazz quintet or big band).

For the specialization **Producing**, a recorded programme of a varied repertoire must be presented (both listening fragments of the interim phases in the production and score and editing administration will be assessed) via a customary sound medium of:

1. A studio production in which the 'sound' of repertoire from a particular style period is reproduced as closely as possible. Acoustic and electronic instruments must be used in combination (style assignment);
2. A personal arrangement or composition, which demonstrates the skills in signal

processing and computer applications;

3. A live recording of a contemporary work in a setting and/or sound structure that departs from traditional music practice.

For the specialisation **Sound Reinforcement**, students must present a program with a varied repertoire of live sound reinforcement projects carried out during the year (the sound design, microphone and patch lists, crew planning, timetable, etc. must be included in the portfolio) including:

1. The documented explanation of a FOH mix of a live concert with an audience of standard repertoire in which mainly acoustic instruments were reinforced (traditional assignment);
2. The documented explanation of a FOH mix of a performance of experimental or contemporary repertoire with a non-traditional setting and/or sound structure (modern assignment);
3. The documented explanation of a mixdown of a live multitrack recording of a project in which the sound reinforcement was performed by the student at the time of the performance. The recording may be edited or processed.

For each specialisation, the student must have invited a teacher other than the teacher of the main subject who was present during the execution of two of the projects that make up the presentation. This teacher will write a short report on how the student functioned at the time of the execution of the project. The report will be inserted in the student's file and will be available to the committee during the presentation.

The student's work will be assessed, on the basis of the portfolio and the presentation, on the following aspects:

1. Audio-technical quality

- balance;
- spectral balance;
- dynamics;
- spatiality;
- (stereo) imaging;
- technical merit.

2. Creativity

- overall artistic content and vision;
- interpretation of the musical material in relation to sound;
- (post) processing;
- analytical ability;
- working method.

3. Work ethic

- self-activity;
- portfolio (qualitative);

Grading system:	Numeric
Language:	English

Schedule, time, venue:	Schedule to be agreed upon with the teacher
Information:	Paul Jeukendrup – Head of Art of Sound Department (p.jeukendrup@koncon.nl)

Course title:	Projects B3
Osiris course code:	KC-AS-PRB3
Course content:	<p>Throughout the entire course period students will carry out study projects. A project is work performed independently by a student, alone or in a team, that shows strong similarities with the work process in the regular professional practice, for example recording projects, music production projects or sound reinforcement projects. The aim of these projects is to prepare in a practical and very direct way for professional practice by learning professional skills such as preparing a timetable, working under pressure, functioning in a team and communicating in an artistic environment.</p> <p>At the beginning of the course, projects are usually assigned to the student and the details of the project are determined by the main subject teacher and/or project coordinator. As the course progresses, the student will be given more and more freedom, first in choosing projects and later also in working out the details of the projects. In the fourth year of the course, the emphasis will be on projects that are chosen and performed entirely independently.</p> <p>A project must be carefully planned and documented. The physical evidence of the projects is kept in the student's portfolio.</p> <p>The project coordinator supervises the student in the choice of projects and awards the relevant credit points. Factors in his decision are the degree of difficulty and the extensiveness of the project and the student's role in the project. The project coordinator monitors deadlines and, if necessary, addresses the student for not meeting these deadlines.</p> <p>The project coordinator does not personally supervise the projects. If active supervision of a project is needed (as in the case of a question about quality), the project coordinator can designate a supervisor.</p> <p>The main subject teacher (individual main subject) may provide the student with professional feedback on the basis of and by means of the portfolio. The student has to request the feedback, it is not initiated by the main subject teacher. The student may not claim any time from the individual main subject lessons for the teacher's supervision of a project. If active supervision of a project is needed (as in the case of a question about quality), the project coordinator can designate a supervisor.</p> <p>Every project will be carried out by one or more students, including a team leader. Where applicable, the team leader will qualify for extra credit points for his work. The course can stipulate requirements for the number of projects in which the student has to act as a team leader. The tasks of the team leader are as follows:</p> <ul style="list-style-type: none"> • principal responsibility for and contact person for the entire project; • assembling the project team; • submitting a project application to the project coordinator; • writing the project report and submitting the report to the project coordinator within a month of completion of the project; • providing the department, in the person of the project coordinator, with the final

	<p>results of the project (as a rule in the form of audio) within one month of the completion of the project;</p> <ul style="list-style-type: none"> • in the case of a project initiated by the student him/herself, the team leader will be the initiator of the project. <p>The student is in principle obliged to attend every lesson. However, it is inevitable that some lessons will be missed because of participation in a project. Students are personally responsible for minimising their absence. If projects coincide with exams or tests, exams and tests take priority. If attendance at lessons is an assessment criterion for a course, the assessment criteria set out in the in the curriculum apply; participation in a project is not an alternative to this assessment criterion. Students must take this into account in their planning. When planning projects, students must take account of the fact that obligations regarding the course always take priority over the obligations relating to projects. That applies in particular for attendance at exams and tests.</p> <p>With a commitment to participate in a project, a student undertakes to actually carry out the project. If, because of unforeseen circumstances or force majeure, there is a valid reason for not taking part in the project, the student concerned must arrange an adequate substitute so that the project as a whole can continue.</p>
Objectives:	<p>At the completion of this course, the student:</p> <ul style="list-style-type: none"> • is able to work independently at an intermediate level in a professional environment; • has acquired practical experience with working in a team at an intermediate level; • is able to plan and to organize at an intermediate level; • has intermediate production skills; • is able to communicate at an intermediate level in a (semi-) professional environment.
Type of course:	Compulsory
Level:	B3
Duration:	n/a
Prior qualifications/prerequisites:	Projects B2
Teachers:	n/a
Credits:	4
Literature:	n/a
Work form:	n/a
Assessment:	<p>In order to qualify for credit points, for every project an application must be submitted to the project coordinator before the project is carried out using a project application form (available on the intranet). A single project application form has to be submitted for each project containing the names and tasks of all the participating students and a timetable that is as accurate as possible. A project application must also be submitted for projects that are initiated or assigned by the department. The project coordinator determines the number of credit points (EC) that will be awarded on completion of the project, in consultation with the main subject teacher. Factors that will be taken into account are the educational value of the project for the individual student and the time invested by the student. The</p>

	<p>number of ECs awarded on completion of the project will be notified to the student by the project coordinator within two weeks of the application.</p> <p>A report has to be written for each project, which will be inserted in the portfolios of all the participating students. The report must include at least:</p> <ul style="list-style-type: none"> • Substantive information, documented in such a way that a CD booklet or a programme can be compiled from it; • A brief description of how the project progressed; • A brief evaluation of the project, including reflection; • Technical information, documented in such a way that the project can be reproduced by a third party on the basis of that documentation. <p>The project report must be included in the student's e-portfolio and submitted to the project coordinator for assessment within one month of completion of the project.</p> <p>If there is an end result recorded in audio form, if necessary in combination with a video, this recorded end result must be inserted in the student's e-portfolio, accompanied by accurate and complete documentation, within one month of completion of the project.</p> <p>A project qualifies for the predetermined number of ECs if the following criteria are met:</p> <ul style="list-style-type: none"> • The project is completed within a reasonable period. • The report of the project is present in the relevant student's e-portfolio and has been submitted to the project coordinator within one month of completion of the project, and latest before July 1st of the current study year. • The recorded end result (as a rule in the form of audio) has been made available to the project coordinator in the e-portfolio within one month of completion of the project, and latest before July 1st of the current study year.
Grading system:	Pass/Fail
Language:	English
Schedule, time, venue:	n/a
Information:	Paul Jeukendrup – Head of Art of Sound Department (p.jeukendrup@koncon.nl)

Course title:	Sound Reinforcement Design 1
Osiris course code:	KC-AS-SRD1
Course content:	<p>The two-year course Sound Reinforcement Design focusses on the practical aspects of sound reinforcement design in music and music theatre, both technically and conceptually.</p> <p>The technical sound reinforcement design includes the principles of generating sound reinforcement design block diagrams showing the entire signal flow between devices from inputs to outputs, using standard symbols. From those block diagrams, complete and accurate equipment lists will be extracted.</p> <p>The conceptual sound reinforcement design covers the preproduction analysis including score and script analysis, the interpretation of scores and scripts and the principles of marking scores and scripts for use in (automated) mixing. Mix automation design principles and implementation will be covered, including the design and implementation of cue sheets using show control software. The student will learn the basic principles of audio SFX design in music theatre.</p> <p>Student will extend the CAD drawing skills as learned in the Technical Theatre Skills, by learning 3D CAD techniques and working with symbols and libraries.</p>
Objectives:	<p>At the completion of this course, the student:</p> <ul style="list-style-type: none"> • is able to realize a block diagram of a simple sound reinforcement design; • is able to extract a complete and accurate equipment list from a simple existing sound reinforcement design block diagram; • is able to analyse, interpret and mark a score and/or script for sound reinforcement design purposes; • is able to design a proper mix automation for a given score or script; • is able to generate a cue sheet based on an existing score or script; • is able to design basic audio SFX for play back in music theatre; • see also objectives <i>Sound Systems: Design and Optimization</i>.
Type of course:	Compulsory
Level:	B3
Duration:	6 lessons à 02:00
Prior qualifications/prerequisites:	Sound Reinforcement 2
Teachers:	Paul Jeukendrup
Credits:	1
Literature:	Drawing software (Vectorworks, AutoCAD, OmniGraffle, Graphic, ...), spreadsheet software (Excel, Numbers, ...)
Work form:	Group lesson
Assessment:	<p>There is one practical assignment. The student will hand in a conceptual sound design for a given musical and/or theatrical performance, including a system diagram, an equipment list and a loudspeaker plot.</p> <p>A minimum attendance of 80% is required.</p>
Grading system:	Numeric

Language:	English
Schedule, time, venue:	See Asimut schedule
Information:	Paul Jeukendrup – Head of Art of Sound Department (p.jeukendrup@koncon.nl)

Course title:	Sound Systems: Design and Optimization
Osiris course code:	KC-AS-SSDO
Course content:	<p>This intensive, one-week seminar is compulsory for all 3rd year Art of Sound students with specialisation Sound Reinforcement and is open for all other 3rd and 4th year Art of Sound students. It provides the means and physical insight to create predictable sound system designs, regardless of brand and type of speaker and verify the results using a dual channel FFT analyzer (SIM 3, SMAART v7, SysTune, etc.). The complete transmission path from source to receiver will be thoroughly investigated in the acoustical, electrical and psycho-acoustical domains, allowing the participant to have real expectations on which they can act. Topics will be among others:</p> <p><i>Sound In General</i> frequency, period & wavelength; speed of sound; polarity; phase / group delay decibel; RMS; loudness perception; inverse square law; coverage shapes; coverage angle; isobaric charts; Forward Aspect Ratio; Lateral Aspect Ratio; directivity factor; directivity index; comb filter; ground floor measurement.</p> <p><i>Dual-Channel FFT Analyzer</i> Fast Fourier Transform; time domain; frequency domain; spectrum; transfer function; impulse response; RTA.</p> <p><i>Acoustics</i> Schroeder frequency; room modes; Mean Free Path; Sabine equation; RT60; critical distance; Intelligibility; %ALCons; STI; air absorption; temperature.</p> <p><i>Psycho-Acoustics</i> critical bandwidth; echo perception; Haas effect; Source localization.</p> <p><i>Filters</i> graphic (constant vs. proportional Q); parametric; single slope; low & high-pass.</p> <p><i>Speaker Array Configurations</i> coupled point source (symmetrical/asymmetrical); uncoupled line source; uncoupled point source; uncoupled point destination.</p>
Objectives:	<p>At the completion of this course, the student:</p> <ul style="list-style-type: none"> • student is able to design a sound reinforcement system with optimum results in various acoustical and architectural circumstances; • student is able to optimize the performance of a sound reinforcement system using a dual channel FFT analyzer; • student is able to create a reference framework in any acoustical circumstances that enables him to perform correct measurements of and adjustments to a sound system.
Type of course:	Compulsory
Level:	B3
Duration:	6 lessons à 08:00
Prior	Electro Acoustics 2

qualifications/prerequisites:	
Teachers:	Merlijn van Veen
Credits:	1
Literature:	Reader from teacher
Work form:	Group lesson
Assessment:	A minimum attendance of 80% is required.
Grading system:	Attendance Sufficient/Insufficient
Language:	English
Schedule, time, venue:	See Asimut schedule
Information:	Paul Jeukendrup – Head of Art of Sound Department (p.jeukendrup@koncon.nl)

BACHELOR 3**PROFESSIONAL PREPARATION**

Course title:	Tutoring and Portfolio 3
Osiris course code:	KC-AL-PF3
Course content:	<p>First-year students entering the Royal Conservatoire are assigned a tutor. You remain with a tutor for the first three years of the bachelor's course. The tutor's role is to help you to reflect on your study and to monitor your progress. This is accomplished in two ways:</p> <ul style="list-style-type: none"> • By conducting consultations with students individually or in small groups. • By supervising the development of a personal portfolio and discussing it during individual meetings. <p>You are required to keep a personal record of your study progress from the first year until the end of the programme. This portfolio helps you to steer your personal and artistic development. It may contain materials relating to the various activities you undertake and any items you produce during the programme, which can range from a recording or an analysis of a performance, to a report for an elective subject or a personal evaluation of how your studies are progressing. It is important to choose a form that suits you so that the portfolio is something that you can identify with and are happy to work on. In other words, the portfolio should not be regarded as an additional burden, but as a study aid that could eventually serve as a professional calling card. For students in the performance and Art of Sound departments, the portfolio lays the groundwork for Preparation for Professional Practice, a course in the fourth year.</p> <p>More information can be found on intranet.</p> <p>Portfolio presentations are an integral and important part of this course. Students from the B2, B3 and B4 years present (part of) their work to all fellow students as well as to an Art of Sound staff team. After the presentation, all fellow students and the Art of Sound staff team ask questions and give feedback. Students of all Bachelor study years get in touch with each other and with each others work, and learn from each other and each others work. Students prepare for their exam presentation through being questioned and getting constructive feedback on their work.</p>
Objectives:	<p>At the completion of this course, the student:</p> <ul style="list-style-type: none"> • is able to reflect on your study progress and communicate about it with others; • is able to reflect on your personal and artistic growth by verbalizing it, in communication with others and through creating a professional portfolio; • is able to reflect on your role, task and position in the profession as well as in society, and can contribute to it. • has experience in presenting his own work to an audience;

	• is able to give and take constructive feedback.
Type of course:	Compulsory
Level:	B3
Duration:	Group meetings: to be decided by the tutor Private meetings: by appointment
Prior qualifications/prerequisites:	Portfolio and Tutoring 2
Teachers:	Bert Kraaijpoel
Credits:	2
Literature:	The 'Document studievoortgang en portfolio' (NL) and 'Document study progress and portfolio' (EN) can be found on intranet.
Work form:	Group and individual meetings
Assessment:	<p>Every year the tutor will assess the progress of the assigned students on the basis of the following criteria:</p> <ul style="list-style-type: none"> • Evidence that the student has monitored and improved his personal development in a professional, autonomous and critical manner. • The student has demonstrated this in the portfolio and the individual meetings with his tutor. <p>If your participation in the course and the development of your portfolio are regarded as sufficient, you will receive two credit points. NB It is not the quality of the portfolio itself, but the way in which you have used it as a 'reflective tool' that is assessed.</p>
Grading system:	Pass/Fail
Language:	English
Schedule, time, venue:	During the first year the tutors will organise a number of group sessions. Both you and your tutor can take the initiative for a meeting. Consultations with the tutor are confidential, but the tutor will inform the Head of Department in the event of study delays.
Information:	Tutoring coordinator (decaan@koncon.nl)

BACHELOR 3

ACADEMIC SKILLS

Course title:	Communication and Education 2
Osiris course code:	KC-AS-C&E2
Course content:	<p>Following on from Communication and Education 1, in this course attention is devoted to learning practical coaching and guiding skills in relation to the professional practice of the music technologist. The research and production skills learned in the previous course are applied in independently setting up project plans and writing and presenting a full project report.</p> <p>To prepare the student directly and practically for the commercial aspect of professional as (independent) producer, engineer or sound designer, this course covers entrepreneurship including aspects such as qualifications, a business plan, finance, taxes, business organization, general terms and conditions, business insurance and the drafting of quotations (tailored to the music industry). In addition, the computational models geared to the music industry of some standard business calculations are covered, including determining an hourly rate, depreciation and return.</p> <p>From the perspective of a professional orientation, subjects are also covered about the production of music for the recorded music market:</p> <ul style="list-style-type: none"> • Cost overview of music production and calculations of the break-even point; • Copyright aspects and sample contracts; • Establishing and managing production planning; • Distribution and production under own management.
Objectives:	<p>At the completion of this course, the student:</p> <ul style="list-style-type: none"> • can advise and instruct less experienced colleagues in the performance of their work; • is able to draft a detailed project report; • is ready to work as an independent in the music industry; • is able to produce a detailed production planning; • can draft a specified quote for a music production and/or the manufacture of a sound carrier; • has a basic knowledge of the development of copyright and neighbouring rights as well as recent development in them. The student can use this knowledge to advise and/or assess copyright agreements for the Dutch music industry.
Type of course:	Compulsory
Level:	B3
Duration:	12 lessons à 02:00
Prior qualifications/prerequisites:	Communication and Education 1
Teachers:	Matthijs Ruijter
Credits:	1
Literature:	PowerPoint presentations, handouts from teacher
Work form:	Group lesson

Assessment:	<p>There are two tests:</p> <p>1. Project supervision: every student taking the course supervises a first-year Art of Sound student in carrying out a project (course module 'education'). This can be a simple recording project or a sound reinforcement project. The progress of the supervision is described in a report by the course participants (minimum 1500 words). The report will be assessed for content (how was the supervision of the first year AoS student) and correct reporting (planning and structure of the report, mark-up, use of language and distinction between main and subsidiary issues). The deadline for submitting the project report is 30 days after completion of the project but at least two weeks before the last lesson in the year of the course, so that feedback and corrections can be given on the report. The project supervision is assessed with pass/fail.</p> <p>2. A presentation: each student will prepare a presentation about a subject that has been discussed in class, to be presented in the next class. The presentation may consist of the following: practical assignment, case study, brief research, or account of recent developments in a field that is relevant to the subject that has been discussed in class. The presentation is assessed on the basis of:</p> <ul style="list-style-type: none"> • completeness; • connection to the existing teaching material; • ability by the student to interpret the presented; • ability by the student to transfer the presented to his/her fellow students. <p>The presentation is assessed with a numerical result.</p> <p>Both tests must be completed with a pass grade. The final figure is the figure that is obtained for the presentation. A minimum attendance of 80% is required.</p>
Grading system:	Numeric
Language:	English
Schedule, time, venue:	See Asimut schedule
Information:	Paul Jeukendrup – Head of Art of Sound Department (p.jeukendrup@koncon.nl)

Course title:	Psycho Acoustics
Osiris course code:	KC-AS-PSA
Course content:	<p>De cursus behandelt de anatomie en fysiologie van het gehoororgaan in relatie tot de waarneming van toonhoogte, klankkleur, luidheid en ruimtelijkheid. Aan de hand van praktische voorbeelden verkrijgen studenten inzicht in de kleinst waarneembare verschillen en de grenzen van de geluidswaarneming. Aan de hand van de begrippen Critical Bands en Masking leren zij over de principes van Perceptual Audio Coding.</p> <p>De risico's op gehoorbeschadiging worden in kaart gebracht en algemeen geldende veiligheidsmaatregelen ten aanzien van gehoorbescherming worden uitgelegd.</p> <p>Studenten bestuderen de muzikale begrippen consonantie en dissonantie vanuit verkregen kennis over onze waarneming van samenklank.</p>
Objectives:	<p>At the completion of this course, the student:</p> <ul style="list-style-type: none"> • knows the possibilities and limitations of human hearing; • knows the relation between the physical properties and the perceptual properties of sound; • knows the risks of exposure to (high) sound pressure levels over time and is familiar with preventive measures to be taken in order to avoid hearing damage; • knows the principles of audio coding and the audible results of this process; • knows the concepts of consonance and dissonance in relation to human perception.
Type of course:	Compulsory
Level:	B3
Duration:	24 lessons à 02:00
Prior qualifications/prerequisites:	-
Teachers:	Bert Kraaijpoel
Credits:	4
Literature:	The Sense of Hearing, Christopher J. Plack, 2nd edition, Psychology Press, 2014, ISBN: 9781848725157
Work form:	Group lesson
Assessment:	There are two written tests during the course. All tests have equal weight. A minimum attendance of 80% is required.
Grading system:	Numeric
Language:	English
Schedule, time, venue:	See Asimut schedule
Information:	Paul Jeukendrup – Head of Art of Sound Department (p.jeukendrup@koncon.nl)

Course title:	Room Acoustics 2
Osiris course code:	KC-AS-RA2
Course content:	<p>In this course, students study the principles of acoustics in small spaces, such as sound recording rooms, sound control rooms and listening rooms. Topics that are covered include: standing waves (eigenfrequencies, room modes), sound distribution, decay rate (reverberation time), absorption, reflection, diffusion and background noise. This will be done by means of scientific papers, guidelines, standards and examples.</p> <p>Besides minimal (room acoustic) requirements students also focus on personal taste of studio designers and users (subjective aspect). Except for the principles of the use of speakers and/or monitors in a room, the other electro- acoustic components will be excluded in these lectures.</p>
Objectives:	<p>At the completion of this course, the student:</p> <ul style="list-style-type: none"> • is able to describe a control room, listening room or recording studio; • is able to relativise the need of extreme room shapes, the use of expensive constructions and materials; • knows the difference between small and large room acoustics; • knows the difference between near, far, direct, and diffuse field (in relation to source dimensions, distance, directivity, total sound absorption); • knows the most important properties of a recording and listening room; • knows the principles of sound absorption and sound absorbing materials/constructions related to a certain frequency range (low, mid and high, broadband); • knows several common studio concepts.
Type of course:	Compulsory
Level:	B3
Duration:	8 lessons à 02:00 1 lesson à 8
Prior qualifications/prerequisites:	Room Acoustics 1
Teachers:	Constant Hak
Credits:	1
Literature:	-
Work form:	Group lesson
Assessment:	<p>There is one home assignment during the course period and one written test at the end of the course period. Both tests have equal weight.</p> <p>The home assignment is a short paper (minimum 4, maximum 6 pages A4) on the acoustical design of the control room or the recording room of an existing recording studio. The student is assessed on the understanding of the acoustical principles of small spaces as discussed in class.</p> <p>The written test includes both open questions and multiple choice questions. The student is assessed on the theoretical knowledge of acoustical principles of small spaces as discussed in class.</p>

	A minimum attendance of 80% is required.
Grading system:	Numeric
Language:	English
Schedule, time, venue:	See Asimut schedule
Information:	Paul Jeukendrup – Head of Art of Sound Department (p.jeukendrup@koncon.nl)

Course title:	Signals and Systems 2
Osiris course code:	KC-AS-S&ST2
Course content:	These classes are designed to provide a solid background for dealing practically with the physical and mathematical representations of sound signals and sound processing systems. In part 2, attention shifts to system characterisation and the concepts of filtering, convolution, impulse response measurement, nonlinear systems and modulation techniques.
Objectives:	At the completion of this course, the student: <ul style="list-style-type: none"> • is able to deal practically with the physical and mathematical representations of sound signals and sound processing systems; • is able to conceptualize the relationships between various signal-processing models.
Type of course:	Compulsory
Level:	B3
Duration:	36 lessons à 02:15
Prior qualifications/prerequisites:	Signals and Systems 1
Teachers:	Peter Pabon
Credits:	3
Literature:	Chapters 3, 5, 6, 7 and 8 from: Stan Tempelaars, Signal Processing: Speech and Music, (Lisse: Swets and Zetlinger, 1996). Additional PDF's will be distributed by email.
Work form:	Group lesson
Assessment:	There is a written test at the end of the course (weight 50%) and a impulse response assignment (weight 50%). A minimum of 80% attendance is required.
Grading system:	Written test: numeric; Practical Assignment: Pass/Fail
Language:	English
Schedule, time, venue:	See Asimut schedule
Information:	Paul Jeukendrup – Head of Art of Sound Department (p.jeukendrup@koncon.nl)

BACHELOR 3**MINORS OR ELECTIVES**

Course title:	Electives B3
Osiris course code:	KC-EL-EL3
Course content:	For the course descriptions of all electives, please see the Electives Guide on Intranet.
Objectives:	At the completion of this course, the student: n/a
Type of course:	n/a
Level:	B3
Duration:	n/a
Prior qualifications/prerequisites:	n/a
Teachers:	n/a
Credits:	6
Literature:	-
Work form:	n/a
Assessment:	n/a
Grading system:	n/a
Language:	English
Schedule, time, venue:	See Asimut schedule
Information:	n/a

BACHELOR 3**MUSICIANSHIP SKILLS**

Course title:	Aural Skills, Writing Skills and Analysis 3
Osiris course code:	KC-TA-ATV3
Course content:	Build on the first and second year classes in Aural Skills and Analysis students further develop their practical musicianship skills needed for high quality music making and music reading: stylistic understanding, melodic, polyphonic, harmonic and analytical hearing, musical memory and imagination, music reading and writing skills. Reading scores is trained on a higher level then during the second year. Their cognitive development is seen as a result of the practical skills, connected to the musical repertoire that again is gradually becoming more complex during the course. Other, more advanced, repertoire than the student's own repertoire can be studied. It can be chosen from different styles and time periods. Solfège skills are developed to a high level so that students as a group or individually can 'sound' music through singing and playing, with good intonation and musical understanding. In analysis activities compositions are build up from the background elements in a process led by the teacher, so that students understand musical constructs and concepts form the inside of a composition. The aural skills and analysis activities are not only 'tools', but represent artistic value in themselves. Students take initiative in choosing repertoire and designing practical assignments.
Objectives:	At the completion of this course, the student: <ul style="list-style-type: none"> • shows high level of skills in musicianship and musical literacy, and is able to integrate these skills in their own practising and rehearsing techniques; • Can read complex scores; • is showing a high developed musical personality in their music making; • has an advanced understanding of elementary concepts in music (melody, harmony, counterpoint, homophony, polyphony, (a)tonality, modality, texture); • is able to use terms for musical concepts as a professional musician; • has knowledge of what has been learned and is able to reflect on it; • is able to apply the learned skills in a role as music teacher.
Type of course:	Compulsory
Level:	B3
Duration:	36 lessons à 03:20
Prior qualifications/prerequisites:	Aural Skills, Writing Skills and Analysis 2
Teachers:	Patrick van Deurzen
Credits:	14
Literature:	tba
Work form:	Group lesson
Assessment:	Attendance 80%; Weekly evaluation of assignments and activities; Half-term evaluation in December; Exam in June: <ul style="list-style-type: none"> • Portfolio of studied repertoire, assignments, literature; • Solfège performance of all third year groups. Students perform music showing their musicianship skills: stylistic understanding,

	melodic, polyphonic, harmonic and analytical hearing, musical memory and imagination, music reading and writing skills.
Grading system:	Numeric
Language:	English
Schedule, time, venue:	See Asimut schedule
Information:	Suzanne Konings – Head of Music Theory Department (s.konings@koncon.nl)

Course title:	Theory Electives
Osiris course code:	n/a
Course content:	
Objectives:	At the completion of this course, the student:
Type of course:	Compulsory
Level:	B3
Duration:	n/a
Prior qualifications/prerequisites:	
Teachers:	n/a
Credits:	4
Literature:	-
Work form:	Group lesson
Assessment:	
Grading system:	
Language:	English
Schedule, time, venue:	See Asimut schedule
Information:	Paul Jeukendrup – Head of Art of Sound Department (p.jeukendrup@koncon.nl)

BACHELOR 4

ARTISTIC DEVELOPMENT

Course title:	Recording 4
Osiris course code:	KC-AS-REC4
Course content:	<p>The first two years of the four-year Recording course are mandatory for all students. In the third and fourth years the course is compulsory for students who have chosen Recording as their specialisation; for the other students it is an elective course as part of the minor in Recording.</p> <p>In the Recording course the student receives practical instruction in the professional recording process, whereby a musical event is recorded as it occurred in space and time in such a way that on reproduction of this recording the sound and musical experience of the original event are approached as closely as possible. These processes are typical of recordings in the classical and jazz repertoire. The student develops an audio-technical vision that corresponds with the relevant musical given.</p> <p>The student learns to use the common stereo main system techniques AB, XY, MS, ORTF and OHNO in practice. The sound properties of the different systems are analysed using the parameters of spatiality, timbre and source localisation as the main assessment criteria. The influence on the sound of the positioning of the main system in large and small spaces and in relation to the source is studied in order to be able to choose the correct main system in varying acoustical and musical circumstances. The student learns how to use support microphones for soloists, instruments and instrument groups in small and large settings.</p> <p>The student learns to work with various DAW platforms, with the emphasis on:</p> <ul style="list-style-type: none"> • the organisation of multitrack projects; • creating a structural set-up for a multitrack project; • editing musical material performed by small and large ensembles; • creating a musical balance that corresponds with the musical event; • keeping complete and accurate records of the project. <p>Instrument clinics and ensemble clinics teach the students in a very direct way about the source. Various common instrument groups are studied in a practical fashion, with a focus on sound, historical development, the mechanics of the instruments and the function of the instrument and the playing techniques used in different musical styles. Various forms of ensemble common in the classical, contemporary or jazz repertoire are closely studied in a practical manner, with the focus on sound, historical development, repertoire and the usual arrangements on the stage.</p> <p>During the lessons professional recording situations of varying complexity are simulated. The student follows the entire recording process in a team under the teacher's supervision. Elements of this process are preparing a score, drafting a recording plan, holding the recording session, keeping administrative records of the project, communicating with musicians and other stakeholders, editing the</p>

	<p>recording, mixing the recording and delivering the end product within a prescribed deadline.</p> <p>During the first three years of the course a distinction is made between making recordings in large spaces (concert hall recording) and making recordings in small spaces (studio recording).</p> <p>Depending on the size of the group, the teacher may decide to divide the students into smaller groups during the lesson if that will benefit the teaching process; the student will then have less contact time, but it will be more intensive.</p>
Objectives:	<p>At the completion of this course, the student:</p> <ul style="list-style-type: none"> • has an advanced knowledge of microphone types and their applications in music recording; • has an advanced knowledge of stereo main systems and their applications in music recording; • is able to make the right choice for a microphone type and microphone position for a given acoustical source at an advanced level; • is able to make the right choice for a stereo main system in given acoustical circumstances at an advanced level; • is able to work with DAW platforms at an advanced level; • has advanced mixing and editing skills; • has advanced communication skills in a music recording situation.
Type of course:	Compulsory
Level:	B4
Duration:	20 lessons à 02:00
Prior qualifications/prerequisites:	All B2 subjects, Recording 3
Teachers:	Daan van Aalst Matthijs Ruijter
Credits:	4
Literature:	-
Work form:	Group lesson
Assessment:	<p>There is one practical assignment at the end of the course:</p> <p>The student will make a project setup, edits and a mixdown of a session multitrack concert hall recording of a large ensemble with DAW software (Pyramix) and hand in a stereo mix, a project file and the project administration. The mix, editing and project structure will be assessed on applied techniques as discussed in class as well as a musically balanced mix. The project has to be completed by the student as home work. The studio facilities (Control Room) will be used for this purpose. The assignment has to be made available to the teacher through the student's e-portfolio student within 14 days of the last concert hall recording lesson.</p> <p>A minimum attendance of 80% is required.</p>
Grading system:	Numeric
Language:	English
Schedule, time, venue:	See Asimut schedule
Information:	Paul Jeukendrup – Head of Art of Sound Department (p.jeukendrup@koncon.nl)

Course title:	Producing 4
Osiris course code:	KC-AS-PRD4
Course content:	<p>The first two years of the four-year course in Producing are mandatory for all students. In the third and fourth years the course is compulsory for students who have chosen Producing as their specialisation; for the other students the course is an elective in the minor in Producing.</p> <p>The Producing course gives the student a practical grounding in the professional music production process, in which existing or pre-recorded material has to be combined and edited using technology to produce an end result that on reproduction has not previously taken place as such in terms of space and time. These processes are typical of music productions in the contemporary popular repertoire. The student develops an audio-technical vision that corresponds with the relevant musical given.</p> <p>The student learns various uses of microphones that are customary in music production, whereby maximum phase coherence and/or source separation is achieved by means of a combination of microphone placement, directional characteristic and acoustic solutions.</p> <p>In the application of music production techniques a distinction is made between the creative and the supporting role that technology plays in music production and the function of common production techniques in the arrangement is studied. The student learns music production techniques such as editing, mixing, spectral processing, dynamic processing, spatial processing, time and pitch processing, (mix) automation, midi & audio programming, applied sound synthesis, sampling, re-amping and sound replacement.</p> <p>The student learns to work in both an analog and a digital music production environment, with the emphasis on:</p> <ul style="list-style-type: none"> • the organisation of multitrack projects; • creating a structural set-up for a multitrack project; • combining and editing musical material in a layered structure into a new arrangement; • creating a musical balance that corresponds with the musical event; • keeping complete and accurate administrative records of the project. <p>Instrument clinics and ensemble clinics teach the students in a very direct way about the source. Various common instrument groups are studied in a practical fashion, with a focus on sound, historical development, the mechanics of the instruments and the function of the instrument and the playing techniques used in different musical styles and the use of different microphone techniques in specific musical situations.</p> <p>During the lessons professional music production situations of varying complexity are simulated. The student follows the entire music production process as part of a team under the teacher's supervision. Elements of this process are identifying and compiling the musical material, drafting a music production plan, conducting recording sessions, keeping administrative records of the project and</p>

	<p>communicating with musicians and other stakeholders, producing the arrangement (including combining and editing the musical material), producing the mix and delivering the end product within a prescribed deadline.</p> <p>Depending on the size of the group, the teacher may decide to divide the students into smaller groups during the lesson if that will benefit the teaching process; the student will then have less contact time, but it will be more intensive.</p>
Objectives:	<p>At the completion of this course, the student:</p> <ul style="list-style-type: none"> • has an advanced knowledge of microphone applications in music production; • has an advanced knowledge of music production techniques as applied in music production; • is able to work in an analog and a digital music production environment at an advanced level; • has advanced editing and mixing skills; • is able to make a correct choice for music production techniques in a given musical situation at an advanced level; • has advanced arranging skills as applied in a music production situation; • has advanced communication skills in a music production situation.
Type of course:	Compulsory
Level:	B4
Duration:	20 lessons à 02:00
Prior qualifications/prerequisites:	All B2 subjects, Producing 3
Teachers:	Attie Bauw
Credits:	4
Literature:	Handouts given by teacher, Howard Massey - Behind the glass (Volume I, II), William Moylan - Understanding and Crafting the Mix: The Art of Recording (2nd Edition).
Work form:	Group lesson
Assessment:	<p>There are seven assignments to be completed by the student during the course period: six preparing assignments and one concluding assignment. The six preparing assignments focus on a isolated part of the production of a song in the popular repertoire:</p> <ul style="list-style-type: none"> • 2 mix assignments; • 1 arranging assignment; • 2 editing assignments; • 1 sound synthesis / sampling assignment. <p>The preparing assignments are assessed with pass/fail results.</p> <p>The concluding assignment is to produce an existing song from the contemporary popular repertoire and with a modern sound as a "cover". Arrangements, recordings and mix have to be completed, using all producing techniques as discussed in class.</p> <p>The end result is a production that meets the current commercial music production standards.</p> <p>A minimum attendance of 80% is required.</p>

Grading system:	Numeric
Language:	English
Schedule, time, venue:	See Asimut schedule
Information:	Paul Jeukendrup – Head of Art of Sound Department (p.jeukendrup@koncon.nl)

Course title:	Sound Reinforcement 4
Osiris course code:	KC-AS-SR4
Course content:	<p>The first two years of the four-year course in Sound Reinforcement are mandatory for all students. In the third and fourth year the course is compulsory for students who have chosen Sound Reinforcement as their specialisation; for the other students the course is an elective as part of the minor in Sound Reinforcement.</p> <p>The Sound Reinforcement course gives the student a practical grounding in the professional sound reinforcement process when, for musical and/or acoustic reasons, the sound at a musical event has to be adjusted with the help of technology. Characteristic of this situation is that the reproduction occurs simultaneously with and in the same space as the musical action. These situations arise at concert recitals and theatre performances in various musical styles and acoustic conditions. The student develops an audio-technical vision that corresponds with the relevant musical given.</p> <p>The timbral properties of different loudspeaker setups are analysed in spaces with different acoustic and architectural properties. The influence of a loudspeaker setup on spatiality, timbre and source localisation are studied in order to learn how to make the correct choice of loudspeaker arrangement under various musical and acoustic conditions. A distinction is made between single and composite loudspeaker systems, using both point source and line source subsystems.</p> <p>The student learns about various customary microphone applications for sound reinforcement, with a distinction being made between overhead miking, close miking and clip-on miking. The impact of each application in terms of timbre, cross-talk and feedback are studied in order to learn the correct application to choose in different acoustic and musical circumstances. The student learns to work with both wireless and wired technologies.</p> <p>The student learns to work with analog and digital mixing platforms, with the emphasis on:</p> <ul style="list-style-type: none"> • the organisation of the signal distribution in a mixing platform; • creating a functional connection structure between source, mixing platform and destination; • actively operating the mixing platform, with technical choices being based on considerations of a musical nature; • creating a musical balance that corresponds with the musical event; • keeping complete accurate administrative records of the project. <p>Professional sound reinforcement situations of varying complexity are simulated during the lessons. The student follows the entire amplification process as part of a team under the teacher's supervision. This process includes studying the artistic event, designing and realising a loudspeaker and microphone setup that corresponds with the musical event, performing a sound check, creating an aesthetically and functionally correct sound balance in the hall, creating a functional stage sound, keeping records of the project and communicating with musicians and other stakeholders. The student learns to work safely and under</p>

	<p>time pressure.</p> <p>Depending on the size of the group, the teacher may decide to divide the students into smaller groups during the lesson if that will benefit the teaching process; the student will then have less contact time, but it will be more intensive.</p>
Objectives:	<p>At the completion of this course, the student:</p> <ul style="list-style-type: none"> • has advanced knowledge of microphone types and their applications in sound reinforcement; • has advanced knowledge of loudspeaker systems and their applications in sound reinforcement; • is able to make a correct choice for a loudspeaker system and its setup for a given artistic event in a given acoustical situation at an advanced level; • is able to make a correct choice for a microphone type and its positioning for a given source in a given acoustical situation at an advanced level; • is able to work with analog and digital mixing platforms at an advanced level; • is able to realize a functioning mobile sound reinforcement system of high complexity within certain time limits; • has advanced mixing and monitor mixing skills; • has advanced communication skills in a sound reinforcement situation.
Type of course:	Compulsory
Level:	B4
Duration:	20 lessons à 02:00
Prior qualifications/prerequisites:	All B2 subjects, Sound Reinforcement 3
Teachers:	Rob van der Meijs
Credits:	4
Literature:	-
Work form:	Group lesson
Assessment:	<p>There is one practical assignment at the end of the course. The student will hand in documented materials of a complex sound reinforcement project that has been initiated and performed by the student. The project meets the following requirements:</p> <ul style="list-style-type: none"> • minimum 16 and maximum 48 inputs (mainly acoustical sources); • stereo, LCR or surround PA output; • minimum 6 monitor feeds. <p>The materials will cover three parts:</p> <ol style="list-style-type: none"> 1. The student will hand in the digital mixing platform session that has been used during the performance of the project. The session will be assessed on: <ul style="list-style-type: none"> • session structure; • mixer layout; • patching; • routings; • snapshot automation programming. 2. The student will hand in the complete project administration as has been

	<p>prepared before and during and corrected after the performance of the project. The documentation will be assessed on the quality and completeness of the:</p> <ul style="list-style-type: none"> • equipment list; • patch list including microphone choices; • loudspeaker plan(s); • stage plan(s); • time schedule. <p>3. The student will record (part of) the performance of the project on a common digital multitrack recording platform (48 kHz, 24 bit, minimum 5 minutes of music). The recording is made in such a way that the audio files can be used for a virtual sound check with the mixer session as mentioned under point 1. The student will hand in those audio files in a data-compressed format (zip. file) with a maximum file size of 2 GB.</p> <p>All materials will be made available to the teacher through the e-portfolio of the student within 14 days after the last lesson.</p> <p>A minimum attendance of 80% is required.</p>
Grading system:	Numeric
Language:	English
Schedule, time, venue:	See Asimut schedule
Information:	Paul Jeukendrup – Head of Art of Sound Department (p.jeukendrup@koncon.nl)

Course title:	Instrument 4
Osiris course code:	KC-AS-BI4
Course content:	<p>The student follows the Instrument course throughout the four years of the programme. The aim of the instrumental or vocal lessons is to support the development of the student's playing or singing skills and musicality in the main subject. The course assists the music technologist in assessing and communicating with musicians about the artistic and technical aspects of a performance. It covers aspects such as musical interpretation, quality of performance, degree of difficulty, tempo, purity and, in the case of jazz / pop, improvisational skills.</p> <p>At the time of registration for the entrance exam, the student has already made a choice for either classical or jazz / pop. In both streams, the student practices the technical skills by playing etudes and exercises.</p> <p>Although the aim is to achieve the highest possible technical standard, the level of progress is more important than the absolute technical level. For the two streams, musical development is defined as follows:</p> <p>Classical: The student plays a varied and multifaceted repertoire in which compositions from different style periods of Western music history are represented. The student learns to interpret and perform the various styles.</p> <p>Jazz / Pop: The student plays a varied and multifaceted repertoire in which improvisations and arrangements from various streams in Western jazz and/or pop music are represented. The student learns to improvise in the various streams.</p>
Objectives:	<p>At the completion of this course, the student:</p> <ul style="list-style-type: none"> • is able to play an instrument or to sing at a satisfactory musical and technical level; • displays progress in musical and technical terms, (a potential for) musical growth, musical diversity and (for jazz and pop) the ability to improvise; • classical: is able to interpret and perform a diverse and multifaceted repertoire in which compositions from various style periods of Western music history are represented at an intermediate to advanced level; • jazz / pop: is able to interpret and perform a diverse and multifaceted repertoire in which improvisations and arrangements from various streams of Western jazz and/or pop music are represented at an intermediate to advanced level.
Type of course:	Compulsory
Level:	B4
Duration:	34 lessons à 00:40
Prior qualifications/prerequisites:	All B2 subjects, Instrument 3
Teachers:	Stefan Schmid Instrumental and Vocal Teachers
Credits:	9
Literature:	Sheet music

Work form:	Individual lesson
Assessment:	<p>As a rule, the concluding exam in Instrument 4 takes place in May of the fourth year of the course (the exam lasts 20 minutes).</p> <p>The assessment criteria for the concluding Instrument 4 exam are:</p> <ul style="list-style-type: none"> • musical development; • instrumental/vocal technical development; • development of ability to work independently; • for jazz / pop: ability to improvise. <p>The Instrument 4 (Classical) concluding exam consists of the live performance in front of a committee of a programme comprising one or more etudes, together with three assigned pieces from three different style periods. The student may bring an accompanist to the exam. The course does not provide accompanists.</p> <p>The Instrument 4 (jazz, pop) concluding exam consists of the live performance in front of a committee of a programme comprising one or more etudes, together with three assigned pieces that differ in style and tempo. The student must arrange his own accompanying musicians and the necessary instruments/ backline. The course does not provide accompanists.</p>
Grading system:	Numeric
Language:	English
Schedule, time, venue:	Schedule to be agreed upon with the teacher
Information:	Paul Jeukendrup – Head of Art of Sound Department (p.jeukendrup@koncon.nl)

Course title:	Jazz Recording
Osiris course code:	KC-AS-JR
Course content:	<p>On the basis of practical studio recordings and mix sessions of jazz music in different line-ups and styles the student learns to prepare and plan a recording session in a structured manner. During the work process the emphasis is on communicating with the musicians in a recording situation and working as a team. Decision-making in both recording situations and during the mixing process is explored with a view to learning how to produce a well-balanced final mix of a jazz recording within a specific time frame.</p> <p>Every student organises a complete session, including booking the musicians, drawing up the planning for the session and managing the other team members.</p>
Objectives:	<p>At the completion of this course, the student:</p> <ul style="list-style-type: none"> • can make a structured planning for a jazz recording session; • is able to interpret the basic needs and studio setup for a given line-up of a group for typical jazz recording, where all music is performed at the same time; • can work in a team in a jazz recording situation; • has communication skills in a jazz recording situation; • can make proper decisions during a mixdown session; • is able to make a proper mix balance in a limited amount of time from an existing jazz recording.
Type of course:	Compulsory
Level:	B4
Duration:	20 lessons à 02:00
Prior qualifications/prerequisites:	All B2 subjects
Teachers:	Micha de Kanter
Credits:	2
Literature:	-
Work form:	Group lesson
Assessment:	<p>There is one practical assignment during the course. The student realizes a comprehensive planning for a jazz recording production.</p> <p>Part of this planning are: booking the musicians, composing a team, creating a visionary plan for the session and instructing the musicians and team members during pre-production. Included in the documentation are a time schedule, the line up, the names of musicians, composers and arrangers, titles of compositions and a brief description of the goal of the recording (approximately 50 words). All technical details are worked out and documented (setup, patchlist, microphone list, track list, equipment list).</p> <p>The planning documents must be handed in no later than 36 hours before the start of the session. The student will be assessed on the completeness of the documentation, the realism of the plans and the vision that the student shows.</p> <p>A minimum attendance of 80% is required.</p>
Grading system:	Numeric

Language:	English
Schedule, time, venue:	See Asimut schedule
Information:	Paul Jeukendrup – Head of Art of Sound Department (p.jeukendrup@koncon.nl)

Course title:	Main Subject B4
Osiris course code:	KC-AS-HV4
Course content:	<p>The individual main subject lessons are intended to give personal supervision to the student in his professional development and to guide the student in preparation for the test / exam at the end of the academic year. During these lessons the student's portfolio is discussed and he receives feedback on his work. This helps the student to develop a personal audio-technical vision of sound which corresponds with the relevant musical event. The student is advised on the choice of projects and the choice of a particular working method. In that context, the preparation, planning and implementation of the project, the communication during the project and the need to keep adequate administrative records of the project are explored in more depth.</p> <p>The individual main subject lessons are arranged according to the specialisation chosen at the end of the second year of the course and the programme is adapted accordingly.</p>
Objectives:	<p>At the completion of this course, the student:</p> <ul style="list-style-type: none"> • can present a representative and varied programme of music recordings, music productions or sound reinforcement projects at an advanced level; • can analyse and provide feedback on their own and other person's work to an advanced level; • can work independently and professionally in a music recording project, music production project or sound reinforcement project, both inside and outside the conservatoire, at an advanced level; • has developed an outspoken artistic vision of the application of technology in an artistic environment at an advanced level.
Type of course:	Compulsory
Level:	B4
Duration:	32 lessons à 00:50
Prior qualifications/prerequisites:	All B2 subjects, Main Subject Ba3
Teachers:	Daan van Aalst Attie Bauw Maurice Bom Jan Panis
Credits:	14
Literature:	-
Work form:	Individual lesson
Assessment:	<p>At the end of the last year of the course the individual student's progress in the main subject will be assessed by means of a public presentation of the student's work to a committee of teachers and to an audience. This exam will generally take place in June of the fourth year of the course (the exam lasts 60 minutes).</p> <p>The aim of the final exam is:</p> <ul style="list-style-type: none"> • to assess the student's progress in the main subject on the basis of his/her e-portfolio;

- assess the student's creativity and audio-technical insight on the basis of the work presented;
- assess the student's efforts and work ethic on the basis of his/her e-portfolio.

In total, three projects will be presented that are related to the student's chosen speciality and of which the student was a teamleader. Those projects will be documented in a report (pdf) as specified in the Communication and Education classes.

The presentation must contain relevant audio and possibly video examples from which the examination committee can make an assessment of the candidate's technical, artistic and entrepreneurial competences.

In preparation for the presentation the exam candidate must provide each individual member of the committee with a working (possibly temporary) hyperlink to the e-portfolio and the pdf project reports no later than 14 days before the presentation. The student's e-portfolio contains a table of contents mentioning all relevant projects and clearly showing which projects the student took part in as team leader.

During the exams the student will submit an audio CD with the listening examples for the archives. The CD must be accompanied by documentation of all relevant information concerning composers, titles, performers, data of recording, recording locations and names and functions of those who worked on the production.

The requirements for the final presentation are different for each of the three specialisations.

For the specialisation **Recording**, a recorded programme of a varied repertoire must be presented (administration of the score and the editing must be submitted at the exam) via a regular sound medium of respectively:

1. An edited session recording of a solo work, possibly with one or more accompanying instruments (solo, duo or trio setting);
2. A multitrack recording of an ensemble piece (at least a trio or larger formation);
3. A live recording of a concert with audience of a larger formation (i.e. a percussion ensemble, chamber orchestra, jazz quintet or big band).

For the specialization **Producing**, a recorded programme of a varied repertoire must be presented (both listening fragments of the interim phases in the production and score and editing administration will be assessed) via a customary sound medium of:

1. A studio production in which the 'sound' of repertoire from a particular style period is reproduced as closely as possible. Acoustic and electronic instruments must be used in combination (style assignment);
2. A personal arrangement or composition, which demonstrates the skills in signal processing and computer applications;
3. A live recording of a contemporary work in a setting and/or sound structure that departs from traditional music practice.

For the specialisation **Sound Reinforcement**, students must present a program with a varied repertoire of live sound reinforcement projects carried out during the year (the sound design, microphone and patch lists, crew planning, timetable, etc. must be included in the portfolio) including:

1. The documented explanation of a FOH mix of a live concert with an audience of standard repertoire in which mainly acoustic instruments were reinforced (traditional assignment);
2. The documented explanation of a FOH mix of a performance of experimental or contemporary repertoire with a non-traditional setting and/or sound structure (modern assignment);
3. The documented explanation of a mixdown of a live multitrack recording of a project in which the sound reinforcement was performed by the student at the time of the performance. The recording may be edited or processed.

For each specialisation, the student must have invited a teacher other than the teacher of the main subject who was present during the execution of two of the projects that make up the presentation. This teacher will write a short report on how the student functioned at the time of the execution of the project. The report will be inserted in the student's file and will be available to the committee during the presentation.

The student's work will be assessed, on the basis of the portfolio and the presentation, on the following aspects:

1. Audio-technical quality
 - balance;
 - spectral balance;
 - dynamics;
 - spatiality;
 - (stereo) imaging;
 - technical merit.
2. Creativity
 - overall artistic content and vision;
 - interpretation of the musical material in relation to sound;
 - (post) processing;
 - analytical ability;
 - working method.
3. Work ethic
 - self-activity;
 - portfolio (qualitative);
 - portfolio (quantitative);
 - planning and organisation;
 - communication;

Grading system:	Numeric
Language:	English
Schedule, time, venue:	Schedule to be agreed upon with the teacher

Information:	Paul Jeukendrup – Head of Art of Sound Department (p.jeukendrup@koncon.nl)
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Course title:	Mastering
Osiris course code:	KC-AS-M
Course content:	<p>During the course, the student will analyze mixes of existing recordings based on musical and technical elements of the mix. The analysis will be performed on spectral content, dynamic range and spatiality of the mix. Based on this analysis, the student learns to apply mastering techniques in order to produce a final product that meets common industrial standards. The tools that are used in the mastering process are spectral processing (equalization), dynamic processing (compression, limiting), spatial processing, time and pitch processing and special processing (de-essing, dynamic eq, spectral filtering). The student learns to make choices for the application of those tools in different musical styles (typically in the classical, jazz and pop repertoire).</p> <p>The student will learn how to create a professional master in the correct format for the intended delivery medium.</p>
Objectives:	<p>At the completion of this course, the student:</p> <ul style="list-style-type: none"> • is able to analyse a mix of an existing recording on spectral, dynamic and spatial content; • is able to choose the right mastering tool for correcting spectral, dynamic or spatial imperfections in the mix; • is able to make decisions about applied mastering techniques in different musical styles; • is able to produce a professional audio master on different delivery media.
Type of course:	Compulsory
Level:	B4
Duration:	10 lessons à 02:00
Prior qualifications/prerequisites:	All B2 subjects, Listening Skills 3
Teachers:	Bastiaan Kuijt
Credits:	3
Literature:	Bob Katz – Mastering, The art and the science Ear Training – Jason Corey Samples of music by students or supplied by the teacher
Work form:	Group lesson
Assessment:	<p>There is one practical assignment at the end of the course. In this assignment, the student will realise a CD master in DDP format, containing a compilation of three given mixes in different musical styles. The assignment must be submitted to the teacher through the student's e-portfolio within 14 days of the last lesson.</p> <p>A minimum attendance of 80% is required.</p>
Grading system:	Numeric
Language:	English
Schedule, time, venue:	See Asimut schedule
Information:	Paul Jeukendrup – Head of Art of Sound Department (p.jeukendrup@koncon.nl)

Course title:	Projects B4
Osiris course code:	KC-AS-PRB4
Course content:	<p>Throughout the entire course period students will carry out study projects. A project is work performed independently by a student, alone or in a team, that shows strong similarities with the work process in the regular professional practice, for example recording projects, music production projects or sound reinforcement projects. The aim of these projects is to prepare in a practical and very direct way for professional practice by learning professional skills such as preparing a timetable, working under pressure, functioning in a team and communicating in an artistic environment.</p> <p>At the beginning of the course, projects are usually assigned to the student and the details of the project are determined by the main subject teacher and/or project coordinator. As the course progresses, the student will be given more and more freedom, first in choosing projects and later also in working out the details of the projects. In the fourth year of the course, the emphasis will be on projects that are chosen and performed entirely independently.</p> <p>A project must be carefully planned and documented. The physical evidence of the projects is kept in the student's portfolio.</p> <p>The project coordinator supervises the student in the choice of projects and awards the relevant credit points. Factors in his decision are the degree of difficulty and the extensiveness of the project and the student's role in the project. The project coordinator monitors deadlines and, if necessary, addresses the student for not meeting these deadlines.</p> <p>The project coordinator does not personally supervise the projects. If active supervision of a project is needed (as in the case of a question about quality), the project coordinator can designate a supervisor.</p> <p>The main subject teacher (individual main subject) may provide the student with professional feedback on the basis of and by means of the portfolio. The student has to request the feedback, it is not initiated by the main subject teacher. The student may not claim any time from the individual main subject lessons for the teacher's supervision of a project. If active supervision of a project is needed (as in the case of a question about quality), the project coordinator can designate a supervisor.</p> <p>Every project will be carried out by one or more students, including a team leader. Where applicable, the team leader will qualify for extra credit points for his work. The course can stipulate requirements for the number of projects in which the student has to act as a team leader. The tasks of the team leader are as follows:</p> <ul style="list-style-type: none"> • principal responsibility for and contact person for the entire project; • assembling the project team; • submitting a project application to the project coordinator; • writing the project report and submitting the report to the project coordinator within a month of completion of the project; • providing the department, in the person of the project coordinator, with the final

	<p>results of the project (as a rule in the form of audio) within one month of the completion of the project;</p> <ul style="list-style-type: none"> • in the case of a project initiated by the student him/herself, the team leader will be the initiator of the project. <p>The student is in principle obliged to attend every lesson. However, it is inevitable that some lessons will be missed because of participation in a project. Students are personally responsible for minimising their absence. If projects coincide with exams or tests, exams and tests take priority. If attendance at lessons is an assessment criterion for a course, the assessment criteria set out in the in the curriculum apply; participation in a project is not an alternative to this assessment criterion. Students must take this into account in their planning. When planning projects, students must take account of the fact that obligations regarding the course always take priority over the obligations relating to projects. That applies in particular for attendance at exams and tests.</p> <p>With a commitment to participate in a project, a student undertakes to actually carry out the project. If, because of unforeseen circumstances or force majeure, there is a valid reason for not taking part in the project, the student concerned must arrange an adequate substitute so that the project as a whole can continue.</p>
Objectives:	<p>At the completion of this course, the student:</p> <ul style="list-style-type: none"> • is able to work independently at an advanced level in a professional environment; • has acquired practical experience with working in a team at an advanced level; • is able to plan and to organise at an advanced level; • has intermediate production skills; • is able to communicate at an advanced level in a (semi-) professional environment.
Type of course:	Compulsory
Level:	B4
Duration:	n/a
Prior qualifications/prerequisites:	All B2 subjects, Projects B3
Teachers:	n/a
Credits:	6
Literature:	n/a
Work form:	n/a
Assessment:	<p>In order to qualify for credit points, for every project an application must be submitted to the project coordinator before the project is carried out using a project application form (available on the intranet). A single project application form has to be submitted for each project containing the names and tasks of all the participating students and a timetable that is as accurate as possible. A project application must also be submitted for projects that are initiated or assigned by the department. The project coordinator determines the number of credit points (EC) that will be awarded on completion of the project, in consultation with the main subject teacher. Factors that will be taken into account are the educational value of the project for the individual student and the time invested by the student. The number of ECs awarded on completion of the project will be notified to the student by the project coordinator within two weeks of the application.</p>

	<p>A report has to be written for each project, which will be inserted in the portfolios of all the participating students. The report must include at least:</p> <ul style="list-style-type: none"> • Substantive information, documented in such a way that a CD booklet or a programme can be compiled from it; • A brief description of how the project progressed; • A brief evaluation of the project, including reflection; • Technical information, documented in such a way that the project can be reproduced by a third party on the basis of that documentation. <p>The project report must be included in the student's e-portfolio and submitted to the project coordinator for assessment within one month of completion of the project.</p> <p>If there is an end result recorded in audio form, if necessary in combination with a video, this recorded end result must be inserted in the student's e-portfolio, accompanied by accurate and complete documentation, within one month of completion of the project.</p> <p>A project qualifies for the predetermined number of ECs if the following criteria are met:</p> <ul style="list-style-type: none"> • The project is completed within a reasonable period. • The report of the project is present in the relevant student's e-portfolio and has been submitted to the project coordinator within one month of completion of the project, and latest before July 1st of the current study year. • The recorded end result (as a rule in the form of audio) has been made available to the project coordinator in the e-portfolio within one month of completion of the project, and latest before July 1st of the current study year.
Grading system:	Pass/Fail
Language:	English
Schedule, time, venue:	n/a
Information:	Paul Jeukendrup – Head of Art of Sound Department (p.jeukendrup@koncon.nl)

Course title:	Sound Reinforcement Design 2
Osiris course code:	KC-AS-SRD2
Course content:	<p>The two-year course Sound Reinforcement Design focusses on the practical aspects of sound reinforcement design in music and music theatre, both technically and conceptually.</p> <p>The technical sound reinforcement design includes the principles of generating sound reinforcement design block diagrams showing the entire signal flow between devices from inputs to outputs, using standard symbols. From those block diagrams, complete and accurate equipment lists will be extracted.</p> <p>The conceptual sound reinforcement design covers the preproduction analysis including score and script analysis, the interpretation of scores and scripts and the principles of marking scores and scripts for use in (automated) mixing. Mix automation design principles and implementation will be covered, including the design and implementation of cue sheets using show control software. The student will learn the basic principles of audio SFX design in music theatre.</p> <p>Student will extend his CAD drawing skills as learned in the Technical Theatre Skills course, by learning 3D CAD techniques and working with symbols and libraries.</p>
Objectives:	<p>At the completion of this course, the student:</p> <ul style="list-style-type: none"> • is able to realize a block diagram of a simple to complex sound reinforcement design; • is able to extract a complete and accurate equipment list from a simple to complex existing sound reinforcement design block diagram; • is able to analyse, interpret and mark a score and/or script for sound reinforcement design purposes; • is able to design a proper mix automation for a given score or script; • is able to generate a cue sheet based on an existing score or script; • is able to design intermediate level audio SFX for play back in music theatre.
Type of course:	Compulsory
Level:	B4
Duration:	6 lessons à 02:00
Prior qualifications/prerequisites:	All B2 subjects, Sound Reinforcement Design 1
Teachers:	Jan Panis
Credits:	2
Literature:	-
Work form:	Group lesson
Assessment:	<p>There is one practical assignment. The student will hand in a sound reinforcement design including block diagram and equipment list, based on a given score or script. The sound reinforcement design is motivated through documented analysis of the score or script.</p> <p>A minimum attendance of 80% is required.</p>
Grading system:	Numeric

Language:	English
Schedule, time, venue:	See Asimut schedule
Information:	Paul Jeukendrup – Head of Art of Sound Department (p.jeukendrup@koncon.nl)

Course title:	Studio Practicum
Osiris course code:	KC-AS-SP
Course content:	In six lessons followed by an intensive project week the students develop a joint music production as a group under the supervision of the teacher in the Art of Sound studios and at an external commercial studio. The preparatory recordings made by the students independently in the Art of Sound studios will be evaluated during the six lessons in terms of musical, audio-technical and organisational aspects. Following these evaluations, the existing recordings will be further developed or alternative or additional recordings will be made. The ensuing materials will be arranged into their own composition by the students during a project week. In a joint music production, this composition will form the basis for creating a mix to a technically and creatively advanced level. While working in an external commercial studio the division of tasks will be organised along the lines of a common professional music production process and the students learn to work in the complex functionality of a music studio as is usual in professional practice of the music technologist.
Objectives:	At the completion of this course, the student: <ul style="list-style-type: none"> • is able to produce an advanced music production within a team; • is able to evaluate a music production on musical, audio-technical and organisational aspects; • is able to reflect on his/her own musical production work and as a result improve the quality of that work; • knows the complex functionality of a music studio as is customary in the professional practice of a music technologist.
Type of course:	Compulsory
Level:	B4
Duration:	6 lessons à 03:00 5 lessons à 7
Prior qualifications/prerequisites:	All B2 subjects, Producing 3
Teachers:	Attie Bauw
Credits:	2
Literature:	Software to be used: Avid ProTools, Ableton Live.
Work form:	Group lesson
Assessment:	A minimumy attendance of 80% is required.
Grading system:	Attendance Sufficient/Insufficient
Language:	English
Schedule, time, venue:	See Asimut schedule
Information:	Paul Jeukendrup – Head of Art of Sound Department (p.jeukendrup@koncon.nl)

BACHELOR 4**PROFESSIONAL PREPARATION**

Course title:	Internship
Osiris course code:	KC-ST
Course content:	<p>During the fourth year of the course the student will follow an internship for at least 280 hours. The internship is directly and substantively related to the student's chosen specialisation (Recording, Producing, Sound Reinforcement). During the internship the student will work in a team in a professional environment outside the Conservatoire and under the leadership of the supervisor from the host organisation. The internship is intended to provide the student with a direct introduction to the professional practice, but the student will also learn how to look for and find a position in the professional field.</p> <p>The internship will meet the following requirements:</p> <ul style="list-style-type: none"> • The student will hand in an internship proposal at least 30 days prior to the internship start and following the directions stated below; this internship proposal needs to be approved by the Head of the Department and the main subject teacher of the student, prior to commencing the internship; • Prior to the internship start, the student will hand in three signed copies (signed by the student-trainee AND host) of the internship student-trainee agreement (a copy of this agreement can be found on the Art of Sound intranet pages); • The internship has an effective extent of minimum 280 hours excluding preparation and documentation; • The internship activities will be associated both directly and concerning content with the main subject specialisation of the student (Recording, Producing, Sound Reinforcement); • During the internship activities, the student will cooperate in a team; • The student will fulfill the internship activities under supervision of a qualified supervisor of the concerning company or organization; • In case of an internship abroad you will apply for and have at your disposal all necessary visa, permits and other documents that are required by the laws of the country where you will fulfill your internship, prior to commencing the internship.
Objectives:	<p>At the completion of this course, the student:</p> <ul style="list-style-type: none"> • is able to perform work in a professional environment that is directly and substantively related to the student's chosen specialisation; • knows the professional field of the music technologist from close up; • is able to reflect on his own professional functioning; • is able to search for and find a position in the professional field.
Type of course:	Compulsory
Level:	B4
Duration:	n/a
Prior qualifications/prerequisites:	All B2 subjects
Teachers:	Daan van Aalst Attie Bauw

	Maurice Bom Jan Panis
Credits:	10
Literature:	-
Work form:	Internship
Assessment:	<p>The student will write an internship report of approximately 3000 words excluding addenda on the entire internship period, to be handed in with the main subject teacher within 30 days after completion of the internship. The internship report will contain the following subjects:</p> <ul style="list-style-type: none"> • The goal of the internship; • A description of the company or organization where the internship has been fulfilled; • A description of the progress of the internship activities; • An evaluation of the internship, including the students own reflection on his or her functioning during the internship period; • A description of new understanding and knowledge that the student received during the internship period; • Addenda (Brochures, photographs, media (image, sound, video), time schedule, information sources); • an internship evaluation form (a copy of this form can be found at the Art of Sound intranet pages) filled out and signed by the internship supervisor.
Grading system:	Pass/Fail
Language:	English
Schedule, time, venue:	n/a
Information:	Paul Jeukendrup – Head of Art of Sound Department (p.jeukendrup@koncon.nl)

Course title:	Preparation for Professional Practice
Osiris course code:	KC-AL-VBP
Course content:	<p>The Bachelor of Music course at the Royal Conservatoire devotes a lot of attention to developing the artistic and technical skills of the students. These musical aspects are, of course, very important. However, to find employment as musicians and music teachers in the Netherlands or elsewhere, it is also important to learn about the more entrepreneurial and organisational aspects of a musician's career. Particularly during the fourth and final year of the course, students need to carefully consider their future as a professional musician. This course is designed to help the students in their fourth year to make the transition from study to professional practice.</p> <p>The course consists of two elements:</p> <ol style="list-style-type: none"> 1. Students have to attend sessions organised by their department covering a range of topics relating to the professional music world. These sessions will generally be given by experts in the professional domain (including employees of funds, management agencies and festivals) or alumni. 2. Students have to write a Personal Activities Plan (PAP). The PAP must include a well-written curriculum vitae and a personal strengths/weaknesses analysis as an aid to planning a future professional career. An extensive explanation of what a PAP should contain can be found in the document 'Guidelines for writing a Personal Activities Plan (PAP) and Master Plan for fourth year students in the Bachelor of Music Programme', which can be found in the STIP section of the Intranet. <p>The Personal Activities Plan can also serve as a Master Plan (provided it meets the guidelines), which students wishing to continue studying in the Master programme are required to write.</p>
Objectives:	<p>At the completion of this course, the student:</p> <ul style="list-style-type: none"> • is able to critically reflect on his future career plans; • is able to independently search for information about the music profession and knows where to go for advice; • has produced a Personal Activities Plan, including a curriculum vitae and a personal strength/weaknesses analysis; • is able to reflect on his role, task and position in the profession as well as in society, and can contribute to it.
Type of course:	Compulsory
Level:	B4
Duration:	n/a
Prior qualifications/prerequisites:	All B2 subjects, Communication and Education 2
Teachers:	Daan van Aalst
Credits:	4
Literature:	To be determined by supervisors; list with literature and web based information sources is included in the 'Guidelines for writing a Personal Activities Plan (PAP) and Master Plan for fourth year students in the Bachelor of Music Programme'

Work form:	Group lesson
Assessment:	Compulsory attendance of sessions: 80%. The PAP should be handed in before 15 March. It must be signed by the teacher of the student's principal subject.
Grading system:	Numeric
Language:	English
Schedule, time, venue:	See Asimut schedule
Information:	Daan van Aalst (D.vanAalst@koncon.nl)

Course title:	Tutoring and Portfolio 4
Osiris course code:	KC-AL-PF4
Course content:	<p>First-year students entering the Royal Conservatoire are assigned a tutor. You remain with a tutor for the first three years of the bachelor's course. The tutor's role is to help you to reflect on your study and to monitor your progress. This is accomplished in two ways:</p> <ul style="list-style-type: none"> • By conducting consultations with students individually or in small groups. • By supervising the development of a personal portfolio and discussing it during individual meetings. <p>You are required to keep a personal record of your study progress from the first year until the end of the programme. This portfolio helps you to steer your personal and artistic development. It may contain materials relating to the various activities you undertake and any items you produce during the programme, which can range from a recording or an analysis of a performance, to a report for an elective subject or a personal evaluation of how your studies are progressing. It is important to choose a form that suits you so that the portfolio is something that you can identify with and are happy to work on. In other words, the portfolio should not be regarded as an additional burden, but as a study aid that could eventually serve as a professional calling card. For students in the performance and Art of Sound departments, the portfolio lays the groundwork for Preparation for Professional Practice, a course in the fourth year.</p> <p>More information can be found on intranet.</p> <p>Portfolio presentations are an integral and important part of this course. Students from the B2, B3 and B4 years present (part of) their work to all fellow students as well as to an Art of Sound staff team. After the presentation, all fellow students and the Art of Sound staff team ask questions and give feedback. Students of all Bachelor study years get in touch with each other and with each others work, and learn from each other and each others work. Students prepare for their exam presentation through being questioned and getting constructive feedback on their work.</p>
Objectives:	<p>At the completion of this course, the student:</p> <ul style="list-style-type: none"> • is able to reflect on your study progress and communicate about it with others; • is able to reflect on your personal and artistic growth by verbalizing it, in communication with others and through creating a professional portfolio; • is able to reflect on your role, task and position in the profession as well as in society, and can contribute to it. • has experience in presenting his own work to an audience; • is able to give and take constructive feedback.
Type of course:	Compulsory
Level:	B4

Duration:	Group meetings: to be decided by the tutor Private meetings: by appointment
Prior qualifications/prerequisites:	All B2 subjects, Tutoring and Portfolio 3
Teachers:	Bert Kraaijpoel
Credits:	2
Literature:	The 'Document studievoortgang en portfolio' (NL) and 'Document study progress and portfolio' (EN) can be found on intranet.
Work form:	Group and individual meetings
Assessment:	<p>Every year the tutor will assess the progress of the assigned students on the basis of the following criteria:</p> <ul style="list-style-type: none"> • Evidence that the student has monitored and improved his personal development in a professional, autonomous and critical manner. • The student has demonstrated this in the portfolio and the individual meetings with his tutor. <p>If your participation in the course and the development of your portfolio are regarded as sufficient, you will receive two credit points. NB It is not the quality of the portfolio itself, but the way in which you have used it as a 'reflective tool' that is assessed.</p>
Grading system:	Pass/Fail
Language:	English
Schedule, time, venue:	During the first year the tutors will organise a number of group sessions. Both you and your tutor can take the initiative for a meeting. Consultations with the tutor are confidential, but the tutor will inform the Head of Department in the event of study delays.
Information:	Tutoring coordinator (decaan@koncon.nl)

BACHELOR 4**MINORS OR ELECTIVES**

Course title:	Electives B4
Osiris course code:	KC-EL-EL4
Course content:	For the course descriptions of all electives, please see the Electives Guide on Intranet.
Objectives:	At the completion of this course, the student: n/a
Type of course:	n/a
Level:	B4
Duration:	n/a
Prior qualifications/prerequisites:	All B2 subjects
Teachers:	n/a
Credits:	6
Literature:	-
Work form:	n/a
Assessment:	n/a
Grading system:	n/a
Language:	English
Schedule, time, venue:	See Asimut schedule
Information:	n/a