

Subject code: IFI7108	Course title: Digital Interactive Audio	
Amount ECTS: 3		Study semester: Autumn
Objective:	<ul style="list-style-type: none"> • To introduce sound editing with computer • To introduce music production with computer • To introduce sound recording with computer • To introduce different software and hardware tools for sound editing and production • Computers: iMac • Software: Ableton Live 8 • Hardware: M-Audio Fast Track, Akai MPKmini, Sennheiser headphones 	
Course description: (incl. description of the content of independent work in accordance with the determined amount of independent work)	<p>The course is dedicated for students who are interested in recording, producing and editing sound with computer. Digital Interactive Audio course will give you a sneak preview of the state of modern music production (hardware and software) and also gives a possibility to try to everything out yourself. For example record some guitar riffs and keyboard chords or program some beats.</p> <p>From the software side students can use the latest version of Ableton Live 8. All Ableton Live 8 basic features will be presented by a everyday Ableton user. For example students will record, edit and create their own unique sound, compress it, mix it and finally master it.</p> <p>So if you are interested in digital audio and music production then this course should be ideal for you.</p>	
Learning outcomes:	<ul style="list-style-type: none"> • Knows the basics of digital audio • Knows the different sound formats • Can set up Ableton Live 8 • Knows the basic of building a home studio • Can record audio in Ableton Live 8 • Can edit audio in Ableton Live 8 • Can use automation tool in Ableton Live 8 • Can use MIDI in Ableton Live 8 • Can use integrated instruments in Ableton Live 8 • Can use effects in Ableton Live 8 • Knows the basics of compression Ableton Live • Can set volume levels of independent clips in Ableton Live 8 • Knows the basic of mastering in Ableton Live 8 • Knows the basics of rendering from Ableton Live 8 	

Form of evaluation:	Exam (graded). The grade will be combined based on the independent work presented in the end of the course.
Lecturers:	Kristjan Madalvee
Title in English:	Digital Interactive Audio
Prerequisite subjects:	Not needed
Compulsory literature:	95% of the lectures are practicums, so it's hard to replace it with literature.
Replacement literature:	If you happen to miss the first lecture, then here is a link for catching up: http://en.wikipedia.org/wiki/Digital_audio
Requirements for participating in studies and taking exams/assessments	Students have registered to the course and have finished / presented their independent work.
Requirements for independent work	Students can use IMKE Lab for the independent work or their own computers. Each student will get a copy of Ableton Live 8 on CD. (PC/Mac). For independent work students have to produce a track which contains previously learned skills from lectures.

	<p>Requirements:</p> <ol style="list-style-type: none"> 1. 5 audio tracks 2. 3 MIDI tracks 3. 3 imported audio clips 4. 3 audio effects 5. 2 midi effects 6. 8 MIDI instruments 7. Automation of effects or instrument parameters 8. Field recording 9. Mastering of your work 10. Presentation of independent work <p>The maximum length of independent work is three minutes, minimum length one minute</p>
Exam evaluation criteria or minimum level necessary to pass assessment	<p>A - Points from 1 – 9 and 10 are filled 100%</p> <p>B - Points from 1 – 8 and 10 are filled 100%</p> <p>C - Points from 1 – 6 and 10 are filled 100%</p> <p>D - Points from 1 – 4 and 10 are filled 100%</p> <p>E - Points from 1 – 2 and 10 are filled 100%</p>
Additional information on course content, division of course by topics, incl. times of contact lessons taking place in the form of seminar.	<p>1. Lecture – Four academic hours 16.15-19.45</p> <p>Introduction to digital audio History of digital audio History of electronic music Sound formats Introduction to Ableton Live 8 Introduction to music production Setting up Ableton Live 8 Setting up external soundcards Setting up external keyboards (MPKmini) Setting up external controllers (APC-40) Setting up input/output channels Introduction to studio hardware Soundcards External controllers Speakers Computers Chords Microphones Setting up home studio (speaker placement)</p> <p>2. Lecture Four academic hours 16.15-19.45</p> <p>Recording - hands on</p>

Introduction to recording
Creating a new project in Ableton Live 8
Saving (file locations)
Audio Track
Recording (demo)
Sound editing
Changing tempo
Splitting
Looping
Volume levels
Automation
Introduction to automation in Ableton Live 8
Pen tool

3. Lecture Four academic hours 16.15-19.45

MIDI
Introduction to MIDI
How to record in MIDI
Mapping external controllers in Ableton Live 8
Integrated instruments
Location of instruments in Ableton Live 8
Instruments
Instrument Rack
Midi Track
Midi Clip
Effects
Introduction to effects
Location of effects in Ableton Live 8
Return Track
Effect Rack
Gate
Auto Filter
Delay
Reverb
Chorus
Beat Repeat
Ping Pong Delay

4. Lecture Four academic hours 16.15-19.45

Compressor
Introduction to compression
Side Chain compressor
Multiband compressor
Mixing
Introduction to mixing
EQ
Automation
Mastering
Introduction to mastering
Mastering plugins

	Mastering hardware Rendering Formats (Wav, Aiff) Bit Depth Dithering Rendered Track 5. Lecture Four academic hours 16.15-19.45 Ableton Live 8 for DJ-ng/Live performance Demo (Live, DJ) Hardware Preparing your music (Warp Markers) Examples from the world (Paul Kalkbrenner, Dedmau5) 6. Lecture Four academic hours 16.15-19.45 Presentation of individual projects. Students will present their work
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Unit in charge of subject:	21.09.2011
Name of person compiling course programme:	Kristjan Madalvee
Signature:	
Date:	

Course programme registered in the academic unit

Date	21.09.2011
Name of study assistant	Hanna-Liisa Pender
Signature	