§ 54 Master´s Programme MusicDesign

(1) The compulsory courses and compulsory electives in the Master’s degree programme have a total weighting of 90 credit points.

(2) The required modules and taught courses in the Master’s degree programme and the corresponding graded and non-graded assessments are shown in Table 1 and Table 2 (Table 1 gives an overview).

Table 1: Module Structure

<table>
<thead>
<tr>
<th>Modul/ Semester</th>
<th>1</th>
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<th>3</th>
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<td>Master Project</td>
<td>Methodology in Research and Design</td>
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<tr>
<td>1</td>
<td>Sound Interfaces</td>
<td>Interactive Sound and Music</td>
<td>Interaction Design</td>
<td>Psychoacoustics and Audio Processing</td>
<td>Elective Module MusicDesign</td>
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</table>

Table 2: MusicDesign (Semester 1 - 3)

<table>
<thead>
<tr>
<th>Modul</th>
<th>Lehrveranstaltung</th>
<th>Art</th>
<th>Umfang (SWS)</th>
<th>Prüfungs-leistung</th>
<th>Studien-leistung</th>
<th>Leistungs-punkte</th>
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<tr>
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Letzte Änderung: 07.06.2018 - SPO Version 11 (Stand vom 16.05.2018)
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1. The graded and non-graded assessments are determined individually in consultation with the Dean of Studies on the basis of the qualification obtained in the first degree course.

Letzte Änderung: 07.06.2018 - SPO Version 11 (Stand vom 16.05.2018)
Elective Module Music Design

Module code | Workload | Credits | Semester | Repetition | Duration
--- | --- | --- | --- | --- | ---
DM-11-2735 | 180 h | 6 | 1 | WiSe | 1 Semester

Course

- **Language**
- **Contact hours**
- **Self-study**
- **Class size**

<table>
<thead>
<tr>
<th>Course</th>
<th>Language</th>
<th>Contact hours</th>
<th>Self-study</th>
<th>Class size</th>
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</thead>
<tbody>
<tr>
<td>a) Laut WPM/WPV Liste (Modulhandbuch Teil 3)</td>
<td>Deutsch/Englisch</td>
<td>4 SWS / 45 h</td>
<td>135 h</td>
<td>15</td>
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</tbody>
</table>

Learning outcomes

After successfully completing the module, students will be able to ...

- **Knowledge:**
  - The module serves the individual adjustment of the student’s competences to the requirements of the degree course and thereby considers the first degree, the own estimation and objective as well as the estimation of the Dean of Studies.

Individual component content

- **a) As per WPM/WPV list (module handbook part 3)**
  - The contents will be specified in agreement with the Dean of Studies individually.

Teaching methods

- **a) As per WPM/WPV list (module handbook part 3)**
  - Respectively individual, e.g. lecture, seminar, exercise, project etc.

Prerequisites

- **a) As per WPM/WPV list (module handbook part 3)**
  - None
Methods of assessment

a) As per WPM/WPV list (module handbook part 3)
   - The graded assessment will be specified individually in consultation with the Dean of Studies.
   - The non-graded assessment will be defined individually in consultation with the Dean of Studies.

   Graded assessment (credit points): Individually
   Non-graded assessment (credit points): Individually

Applicability of module

Required module in:

Person responsible for module / lecturer

Person responsible for module:
   - StudiendekanIn MusicDesign M.A.

Full-time lecturers:

a) As per WPM/WPV list (module handbook part 3)
   - Alle ProfessorInnen der Fakultät

Reading list (core texts and recommended texts)

a) As per WPM/WPV list (module handbook part 3)
   - Please refer to the reading lists of the modules.
Interaction Design

Module code  Workload  Credits  Semester  Repetition  Duration
DM-11-2732  180 h  6  1  WiSe  1 Semester

Course  Language  Contact hours  Self-study  Class size
a) Interaction Design, Seminar  Englisch  2 SWS / 22,5 h  67,5 h  30
b) Interaction Design, Lab  Englisch  2 SWS / 22,5 h  67,5 h  30

Learning outcomes

After successfully completing the module, students will be able to ...

Knowledge:
→ describe psychological bases of human information processing.

Comprehension:
→ analyse and evaluate the interaction of users with different media and devices.

Application:
→ conceptualise and design different kinds of interfaces.

Analysis:
→ use interaction strategies and compare the user experience.

Synthesis:
→ conceive and present interactions.

Evaluation:
→ evaluate and improve interaction elements on the basis of user studies.
Individual component content

a) Interaction Design, seminar
   - Interactivity concept, basics, milestones
   - Usability & user experience, user centered design 2.0, emotional interaction
   - Storyboarding, visualisation of ideas, scenario
   - Prototyping, Physical Computing, Arduino
   - Typography, microinteractions, tonality
   - Multi touch interaction
   - Gamification, onboarding, trigger
   - NUI, 3D gesture-based interaction
   - Evaluation

b) Interaction Design, lab
   - Practical experimentation with the topics covered by the course a).

Teaching methods

a) Interaction Design, seminar
   - Seminar

b) Interaction Design, lab
   - Practical work

Prerequisites

a) Interaction Design, seminar
   - None

b) Interaction Design, lab
   - None
Module Handbook MusicDesign M.A.
Faculty of Digital Media - Part 2: Required Modules
Module: Interaction Design

Methods of assessment

a) Interaction Design, seminar
   - Study-related presentation (sbR)  Non-graded assessment (credit points): 2

b) Interaction Design, lab
   - Practical work (A)  Graded assessment (credit points): 4

Applicability of module

Required module in:

Person responsible for module / lecturer

Person responsible for module:
   - Prof. Thomas Krach

Full-time lecturers:

a) Interaction Design, seminar
   - Andreas Sieß
   - Daniel Hepperle

b) Interaction Design, lab
   - Andreas Sieß
   - Daniel Hepperle
Reading list (core texts and recommended texts)

a) Interaction Design, seminar
   - Wigdor, Daniel; Wixon, Dennis: Brave NUI World, Elsevier, 2011
   - Pratt, Andy; Nunes, Jason: Interactive Design, Rockport, 2012
   - Preim, Bernhard; Dachselt, Raimund: Interaktive Systeme 2, Springer, 2015
   - Saffer, Dan: Microinteractions, O'Reilly, 2013

b) Interaction Design, lab
   - See course a)
Interactive Sound and Music

Module code | Workload | Credits | Semester | Repetition | Duration
---|---|---|---|---|---
DM-11-2698 | 180 h | 6 | 1 | WiSe | 1 Semester

Course

<table>
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<tr>
<th></th>
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<th>Contact hours</th>
<th>Self-study</th>
<th>Class size</th>
</tr>
</thead>
</table>
a) Interactive Sound and Music, Seminar | Englisch | 2 SWS / 22,5 h | 52,5 h | 20 |
b) Interactive Sound and Music, Praktikum | Englisch | 2 SWS / 22,5 h | 82,5 h | 20 |

Learning outcomes

After successfully completing the module, students will be able to ...

Knowledge:

→ define basic concepts in the design of interactive sound and music applications.
→ outline technical and aesthetic aspects in the design of interactive sound and music applications.

Comprehension:

→ understand the correlation between movement/action and sound processes in daily life as well as different musical and non-musical practices.
→ understand different technologies for the design of interactive sound and music.

Application:

→ process prerecorded sound and music interactively.
→ design sound and music processes according to given movements/actions/procedures.

Analysis:

→ analyse complex sound sequences and structures in their relationship to movement and action.
→ analyse technical and aesthetical aspects of interactive sound and music applications.

Synthesis:

→ design interactive sound and music applications.

Evaluation:

→ evaluate the design of interactive sound and music applications.
→ evaluate the technical implementation of interactive sound and music applications.
Individual component content

a) Interactive Sound and Music, seminar
   - Applications and scopes of application of interactive sounds and music
   - Basic concepts of the design of interactive sounds and music
   - Relationships between sound/listening and action
   - Metaphors and affordances in the design of interactive sound and music applications
   - Playingtechniques in musical and extra-musical practices
   - Sonification and audification
   - Digital musical instruments
   - Generative and improvising systems
   - Interaction in digital music media
   - Interactive sound in product design

b) Interactive Sound and Music, practical part
   - Practical experimentation with the topics covered by the course a).

Teaching methods

a) Interactive Sound and Music, seminar
   - Seminar

b) Interactive Sound and Music, practical part
   - Practical work

Prerequisites

a) Interactive Sound and Music, seminar
   - None

b) Interactive Sound and Music, practical part
   - None
Module Handbook MusicDesign M.A.
Faculty of Digital Media - Part 2: Required Modules

Module: Interactive Sound and Music

Methods of assessment

a) Interactive Sound and Music, seminar
   - Course overarching practical work during the semester (sbA)
   Graded assessment (credit points): 6

b) Interactive Sound and Music, practical part
   - Course overarching practical work during the semester (sbA)
   Graded assessment (credit points): See course a)

Applicability of module

Required module in:
   - MusicDesign M.A. (SPO-Version: 10)

Required elective module in:
   - Medieninformatik M.Sc.
   - Design Interaktiver Medien M.A.

Person responsible for module / lecturer

Person responsible for module:
   - Prof. Dr. Norbert Schnell

Full-time lecturers:

a) Interactive Sound and Music, seminar
   - Prof. Dr. Norbert Schnell

b) Interactive Sound and Music, practical part
   - Prof. Dr. Norbert Schnell
Reading list (core texts and recommended texts)

a) Interactive Sound and Music, seminar
   - Godøy, Rolf Inge; Leman, Marc: Musical Gestures: Sound, Movement, and Meaning, Routledge, 2010
   - Cox, Christoph; Warner, Daniel: Audio Culture: Readings in Modern Music, A&C Black, 2004

b) Interactive Sound and Music, practical part
   - See course a)
Psychoacoustics and Audio Processing

<table>
<thead>
<tr>
<th>Module code</th>
<th>Workload</th>
<th>Credits</th>
<th>Semester</th>
<th>Repetition</th>
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<tr>
<td>DM-11-2699</td>
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<td>1</td>
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**Course**

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<tr>
<td></td>
<td>2 SWS / 22,5 h</td>
<td>67,5 h</td>
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</table>

**Psychoacoustics and Audio Processing, Seminar**

**Psychoacoustics and Audio Processing, Praktikum**

**Learning outcomes**

After successfully completing the module, students will be able to ...

**Knowledge:**

→ explain the bases of auditory perception as well as the techniques in the processing of sounds.

→ name different signal processing techniques and -algorithms for the analysis and synthesis of sound and motion in musical applications as well as psychoacoustical concepts and models, which determine the auditory perception.

**Comprehension:**

→ explain the basic acoustical and mechanical principles and sound characteristics in their relation to signal processing technologies for the analysis, synthesis and transformation of sound.

→ understand the operating principle of signal processing techniques and -algorithms in music applications.

**Application:**

→ deal with signal processing techniques and -algorithms in different music applications.

→ use analysis and synthesis software drawing relationships to psychoacoustical and musical parameters.

**Analysis:**

→ select signal processing techniques and -algorithms for particular applications.

→ select software components for designing sound and music

**Synthesis:**

→ design signal processing systems in music applications.

→ conceptualise and design sound using the perspective of psychacoustics and audio processing.

**Evaluation:**

→ assess the quality of signal processing technologies in music applications.

→ assess the effect and quality of a sound event/process.
Module Handbook MusicDesign M.A.
Faculty of Digital Media - Part 2: Required Modules

Module: Psychoacoustics and Audio Processing

Semester: 1

Individual component content

a) Psychoacoustics and Audio Processing, seminar
   - Overview of signal processing techniques in audio applications
   - Bases of the perception of sound and motion
   - Overview of specific signal processing technologies in music applications
   - Digital models of acoustical and mechanical systems
   - Sound synthesis and transformation
   - Sound analysis
   - Audio descriptors and qualities of motion
   - Processing of audio and motion analysis data
   - Design of signal processing systems in musical applications

b) Psychoacoustics and Audio Processing, practical part
   - Practical experimentation with the topics covered by the course a).

Teaching methods

a) Psychoacoustics and Audio Processing, seminar
   - Seminar

b) Psychoacoustics and Audio Processing, practical part
   - Practical work

Prerequisites

a) Psychoacoustics and Audio Processing, seminar
   - None

b) Psychoacoustics and Audio Processing, practical part
   - None
Methods of assessment

a) Psychoacoustics and Audio Processing, seminar
   - Presentation (R)                Graded assessment (credit points): 3

b) Psychoacoustics and Audio Processing, practical part
   - Practical work during the semester (SbA) Non-graded assessment (credit points): 3

Applicability of module

Required module in:
   - MusicDesign M.A. (SPO-Version: 10)

Required elective module in:
   - Medieninformatik M.Sc.
   - Design Interaktiver Medien M.A.

Person responsible for module / lecturer

Person responsible for module:
   - Prof. Dr. Norbert Schnell

Full-time lecturers:

a) Psychoacoustics and Audio Processing, seminar
   - Prof. Dr. Norbert Schnell

b) Psychoacoustics and Audio Processing, practical part
   - Prof. Dr. Norbert Schnell
Reading list (core texts and recommended texts)

a) Psychoacoustics and Audio Processing, seminar


b) Psychoacoustics and Audio Processing, practical part

Module: Sound Interfaces

Sound Interfaces

Module code | Workload | Credits | Semester | Repetition | Duration
---|---|---|---|---|---
DM-11-2700 | 180 h | 6 | 1 | WiSe | 1 Semester

Course | Language | Contact hours | Self-study | Class size
---|---|---|---|---
a) Sound Interfaces, Seminar | Englisch | 2 SWS / 22,5 h | 52,5 h | 20
b) Sound Interfaces, Praktikum | Englisch | 2 SWS / 22,5 h | 82,5 h | 20

Learning outcomes

After successfully completing the module, students will be able to ...

Knowledge:
→ know different sound interfaces.

Comprehension:
→ describe and illustrate usage scenarios and environments.

Application:
→ design and implement sound interfaces.

Analysis:
→ understand and compare specific hardware and algorithms.

Synthesis:
→ design and develop sound interfaces.

Evaluation:
→ evaluate and assess sound interfaces.
Individual component content

a) Sound Interfaces, seminar
   - Introduction
   - Perception, semiotics
   - Overview of current sound interfaces
   - Futuristic sound interfaces
   - Prototyping with 3D printing and lasercutter
   - Sensor technology
   - Pattern recognition
   - Marker based and markerless vision-based tracking
   - Electro-mechanical foundations
   - Physical computing

b) Sound Interfaces, practical part
   - Practical experimentation with the topics covered by the course a).

Teaching methods

a) Sound Interfaces, seminar
   - Seminar

b) Sound Interfaces, practical part
   - Practical work

Prerequisites

a) Sound Interfaces, seminar
   - None

b) Sound Interfaces, practical part
   - None
Methods of assessment

a) Sound Interfaces, seminar
   - Course overarching practical work during the semester (sbA)
   Graded assessment (credit points): 6

b) Sound Interfaces, practical part
   - Course overarching practical work during the semester (sbA)
   Graded assessment (credit points): See course a

Applicability of module

Required module in:
   - MusicDesign M.A. (SPO-Version: 10)

Required elective module in:
   - Medieninformatik M.Sc.
   - Design Interaktiver Medien M.A.

Person responsible for module / lecturer

Person responsible for module:
   - Prof. Dr. Norbert Schnell

Full-time lecturers:

a) Sound Interfaces, seminar
   - Prof. Dr. Norbert Schnell

b) Sound Interfaces, practical part
   - Prof. Dr. Norbert Schnell
Reading list (core texts and recommended texts)

a) Sound Interfaces, seminar

- Ishii, Hiroshi; Ullmer, Brygg: Tangible Bits. Towards Seamless Interfaces between People, Bits and Atoms. MIT Media Laboratory, 1997
- Baggio, Daniel Lélis; Emami, Shervin; Escrivá, David Millán; Khvedchenia, Ievgen; Mahmood, Naureen; Saragih, Jason; Shilkrot, Roy: Mastering OpenCV with Practical Computer Vision Projects, Packt Publishing, 2012
- Mazzola, Guerino; Park, Joomi; Thalmann, Florian: Musical Creativity: Strategies and Tools in Composition and Improvisation (Computational Music Science), Springer, 2011

b) Sound Interfaces, practical part

- See course a)
Audio Environments

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<tr>
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<th>Workload</th>
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Course

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<th>Contact hours</th>
<th>Self-study</th>
<th>Class size</th>
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<td>Englisch</td>
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<td>37,5 h</td>
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<td>b) Audio Environments, practical part</td>
<td>Englisch</td>
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</tbody>
</table>

Learning outcomes

After successfully completing the module, students will be able to...

Knowledge:

→ define fundamentals of spatial perception and design techniques for virtual and augmented reality applications.
→ name aesthetic aspects of virtual and augmented acoustic reality.

Comprehension:

→ understand the operating principle of different multichannel audio technologies and their properties in the context of different applications.
→ discuss aesthetic aspects of the design of sound environments in the context of different applications.

Application:

→ deal with techniques of acoustic design in different application contexts (hard- and software).
→ deal with aesthetic aspects of the design of virtual and augmented sound environments.

Analysis:

→ analyse complex acoustical scenes in different environments (nature, urban, interieur, etc.).
→ analyse technical and aesthetical aspects of the design of virtual and augmented sound environment critically.

Synthesis:

→ design virtual and augmented sound environments for different applications.

Evaluation:

→ evaluate the technical means in the design of sound environments.
→ evaluate the aesthetic aspects of sound environments.
Individual component content

a) Audio Environments, theoretical part
   - Introduction: context and applications
   - Bases of spatial perception
   - Aesthetical bases
   - Analysis of acoustical environment and their perception
   - Multi-channel audio systems and 3D audio techniques
   - Distributed and hybrid systems
   - Acoustic scenography in the performance and exhibition context
   - Acoustic scenography in virtual and augmented surroundings
   - 360° film and interactive audio surroundings
   - Multi channel audio systems and 3D audio technologies in application

b) Audio Environments, practical part
   - Practical experimentation with the topics covered by the course a).

Teaching methods

a) Audio Environments, theoretical part
   - Lecture

b) Audio Environments, practical part
   - Practical work

Prerequisites

a) Audio Environments, theoretical part
   - None

b) Audio Environments, practical part
   - None
Methods of assessment

a) Audio Environments, theoretical part
   - Exam (K)  
     Graded assessment (credit points): 3

b) Audio Environments, practical part
   - Practical work during the semester (SbA)  
     Non-graded assessment (credit points): 3

Applicability of module

Required module in:
- MusicDesign M.A. (SPO-Version: 10)

Required elective module in:
- Medieninformatik M.Sc.
- Design Interaktiver Medien M.A.

Person responsible for module / lecturer

Person responsible for module:
- Prof. Dr. Norbert Schnell

Full-time lecturers:

a) Audio Environments, theoretical part
   - Prof. Dr. Norbert Schnell
   - Prof. Thorsten Greiner

b) Audio Environments, practical part
   - Prof. Dr. Norbert Schnell
Reading list (core texts and recommended texts)

a) Audio Environments, theoretical part
   - Weinzierl, Stefan: Handbuch der Audiotechnik, Springer Verlag, 2008
   - Funkhouser, Thomas: Sounds Good to Me, Computational Sound for Graphics, Virtual Reality, and Interactive Systems, SIGGRAPH 2002 Course Notes
   - Fischer-Lichte, Erika: Ästhetik des Performativen, Suhrkamp, 2004

b) Audio Environments, practical part
   - See course a)
# Master Project

<table>
<thead>
<tr>
<th>Module code</th>
<th>Workload</th>
<th>Credits</th>
<th>Semester</th>
<th>Repetition</th>
<th>Duration</th>
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<td>12</td>
<td>2</td>
<td>SoSe</td>
<td>1 Semester</td>
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<table>
<thead>
<tr>
<th>Course</th>
<th>Language</th>
<th>Contact hours</th>
<th>Self-study</th>
<th>Class size</th>
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<tbody>
<tr>
<td>a) Master Project</td>
<td>Englisch</td>
<td>2 SWS / 22,5 h</td>
<td>337,5 h</td>
<td>6</td>
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</tbody>
</table>

## Learning outcomes

After successfully completing the module, students will be able to ...

- **Knowledge:**
  - Respectively depending on the given master project.

## Individual component content

a) **Master Project**

- The projects offer a specific assignment from the topic areas and research focuses of the Faculty of Digital Media. The students work in teamwork on a complex project task with practical relevance.

## Teaching methods

a) **Master Project**

- Project work

## Prerequisites

a) **Master Project**

- Knowledge of information research, academic work, academic documentation
Methods of assessment

a) Master Project

- Practical work (A)  Graded assessment (credit points): 12
- Presentation during the semester (sbR)  Non-graded assessment (credit points): 0

Applicability of module

Required module in:

- MusicDesign M.A. (SPO-Version: 10)

Person responsible for module / lecturer

Person responsible for module:

- StudiendekanIn MusicDesign M.A.

Full-time lecturers:

a) Master Project

- Alle ProfessorInnen der Fakultät

Reading list (core texts and recommended texts)

a) Master Project

- Depends on individual master project
Module Handbook MusicDesign M.A.
Faculty of Digital Media - Part 2: Required Modules

Module: Methodology in Research and Design

Methodology in Research and Design

<table>
<thead>
<tr>
<th>Module code</th>
<th>Workload</th>
<th>Credits</th>
<th>Semester</th>
<th>Repetition</th>
<th>Duration</th>
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<tr>
<td>DM-12-2701</td>
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Course

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<th>Contact hours</th>
<th>Self-study</th>
<th>Class size</th>
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<tbody>
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<td>Englisch</td>
<td>2 SWS / 22,5 h</td>
<td>52,5 h</td>
<td>20</td>
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</tbody>
</table>

Learning outcomes

After successfully completing the module, students will be able to ...

Knowledge:

→ understand empirical research literature and theoretical models.

Comprehension:

→ understand aims of theoretical models and studies.

Application:

→ implement skills in small individual studies.

Analysis:

→ judge and verify models and results of empirical studies.

Synthesis:

→ understand the concepts of quantitative and qualitative methods as well as epistemological approaches.

Evaluation:

→ rank research work in the field of music design and make a plausibility check.
Individual component content

a) Methodology in Research and Design, theoretical part
   - Philosophy of science
   - Research and writing skills
   - Research areas: media science, music science etc.
   - Basic research about human perception and impact
   - Basic research in the social and applied psychology of music
   - Empirical studies - qualitative methods
   - Empirical studies - quantitative methods
   - Creation of empirical studies

b) Methodology in Research and Design, practical part
   - Practical experimentation with the topics covered by the course a).

Teaching methods

a) Methodology in Research and Design, theoretical part
   - Seminar

b) Methodology in Research and Design, practical part
   - Practical work

Prerequisites

a) Methodology in Research and Design, theoretical part
   - None

b) Methodology in Research and Design, practical part
   - None
Methods of assessment

a) Methodology in Research and Design, theoretical part
   - Course overarching practical work during the semester (sbA)  
     Graded assessment (credit points): 6

b) Methodology in Research and Design, practical part
   - Course overarching practical work during the semester (sbA)  
     Graded assessment (credit points): See course a)

Applicability of module

Required module in:
   - MusicDesign M.A. (SPO-Version: 10)

Person responsible for module / lecturer

Person responsible for module:
   - Prof. Dr. Norbert Schnell

Full-time lecturers:

a) Methodology in Research and Design, theoretical part
   - Prof. Dr. Norbert Schnell
   - Prof. Dr. Christina Zenk

b) Methodology in Research and Design, practical part
   - Prof. Dr. Norbert Schnell
   - Prof. Dr. Christina Zenk
Reading list (core texts and recommended texts)

a) Methodology in Research and Design, theoretical part

- Baur, Nina; Blasius, Jörg (Hg.): Handbuch Methoden der empirischen Sozialforschung, Wiesbaden, 2014
- Sandberg, Berit: Wissenschaftliches Arbeiten von Abbildung bis Zitat. Lehr- und Übungsbuch für Bachelor, Master und Promotion, Berlin & Boston, 2017
- Burnard, Pamela; Mackinlay; Elizabeth; Powell, Kimberly (Eds.): The Routledge International Handbook of Intercultural Arts Research, London/New York, 2016
- Hallam, Susan; Cross, Ian; Thaut , Michael (Hg.): The Oxford handbook of music psychology. Oxford, 2011

b) Methodology in Research and Design, practical part

- See course a)
Sound Culture

Module code: DM-12-2702
Workload: 180 h
Credits: 6
Semester: 2
Repetition: SoSe
Duration: 1 Semester

Course

<table>
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<th>Theories of musicdesign</th>
<th>Language</th>
<th>Contact hours</th>
<th>Self-study</th>
<th>Class size</th>
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<tr>
<td>DM-12-2702</td>
<td>Englisch</td>
<td>2 SWS / 22,5 h</td>
<td>67,5 h</td>
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<tr>
<td>Subjects and techniques of musicdesign</td>
<td>Englisch</td>
<td>2 SWS / 22,5 h</td>
<td>67,5 h</td>
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</table>

Learning outcomes

After successfully completing the module, students will be able to ...

Knowledge:

→ know the fields of musical media practice and describe characteristics of music design.
→ know relevant music-, media- and cultural scientific theories with regard to music design.

Comprehension:

→ analyse and understand design processes as well as results.
→ understand theoretical approaches to music design and their respective relevance.

Application:

→ transfer the specific requirements of musical design to own projects.
→ transfer relevant theoretical aspects to your own work.

Analysis:

→ examine and systematically describe musical media practices, their subject matters and processes.
→ reflect theoretical approaches from the perspective of the musical media practice.

Synthesis:

→ understand and apply principles of music design as basis for quality of individual projects.
→ develop a theoretical understanding against the background of different scientific approaches to music design.

Evaluation:

→ evaluate design processes and results.
→ identify and verify the validity of theories regarding perception, communication, and effectiveness.
Individual component content

a) Theories of Music Design
   - Theory of Music Design
   - Sound research in cultural studies
   - New musicology
   - Audio media culture
   - Psychoacoustics and phenomenology of sound and music
   - Listening modes
   - Aesthetical and phenomenological theories of listening
   - Acoustic communication
   - Immersion
   - Empirical studies of perception and aesthetics

b) Subjects and Techniques of Music Design
   - Framework model for music design
   - Practises in audio culture
   - Audio branding and acoustical identities
   - Music and sound design in film and video games
   - Sonification
   - Radio drama
   - Acoustical diagnosis
   - Sound environments and soundscapes

Teaching methods

a) Theories of Music Design
   - Seminar

b) Subjects and Techniques of Music Design
   - Seminar
Module Handbook MusicDesign M.A.
Faculty of Digital Media - Part 2: Required Modules

Module: Sound Culture

Semester: 2

Prerequisites

a) Theories of Music Design
   - None

b) Subjects and Techniques of Music Design
   - None

Methods of assessment

a) Theories of Music Design
   - Presentation (R)  
     Graded assessment (credit points): 3

b) Subjects and Techniques of Music Design
   - Presentation (R)  
     Graded assessment (credit points): 3

Applicability of module

Required module in:
   - MusicDesign M.A. (SPO-Version: 10)

Required elective module in:
   - Medieninformatik M.Sc.
   - Design Interaktiver Medien M.A.
Person responsible for module / lecturer

Person responsible for module:
- Prof. Dr. Norbert Schnell

Full-time lecturers:

a) Theories of Music Design
- Dr. Rainer Bayreuther

b) Subjects and Techniques of Music Design
- Dr. Rainer Bayreuther

Reading list (core texts and recommended texts)

a) Theories of Music Design
- Volmar, Axel; Schröter, Jens (Hg.): Auditive Medienkulturen. Techniken des Hörens und Praktiken der Klanggestaltung. Bielefeld, Transcript Verlag, 2013
- Schulze, Holger (Hg.): Sound Studies: Traditionen - Methoden - Desiderate. Eine Einführung. Bielefeld, Transcript Verlag, 2008
- Pinch, Trevor; Bijsterveld, Karin (Hg.): The Oxford Handbook of Sound Studies. London, Oxford University Press, 2011
- Sterne, Jonathan (Hg.): The Sound Studies Reader. London, Routledge, 2012

b) Subjects and Techniques of Music Design
- Spehr, Georg (Hg.): Funktionale Klänge. Hörbare Daten, klingende Geräte und gestaltete Hörerfahrungen. Bielefeld, Transcript Verlag, 2009

Date of issue: 01.09.2018
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Faculty of Digital Media - Part 2: Required Modules

Module: Thesis

Thesis

<table>
<thead>
<tr>
<th>Module code</th>
<th>Workload</th>
<th>Credits</th>
<th>Semester</th>
<th>Repetition</th>
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<td>30</td>
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<td>WiSe/SoSe</td>
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Course

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<tr>
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<th>Contact hours</th>
<th>Self-study</th>
<th>Class size</th>
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<tbody>
<tr>
<td>Deutsch</td>
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<td>900 h</td>
<td>1</td>
</tr>
</tbody>
</table>

a) Masterarbeit und Thesis Disputation

Learning outcomes

After successfully completing the module, students will be able to ...

Knowledge:

→ The thesis preferably covers all levels of the epistemological model, dependant on the respective contents and methods in specific combinations.

Individual component content

a) Master’s Thesis and Thesis Disputation

- Depending on the task

Teaching methods

a) Master’s Thesis and Thesis Disputation

- Thesis, counselling and disputation

Prerequisites

a) Master’s Thesis and Thesis Disputation

- Successful progress of the studies, Thesis registration
Methods of assessment

a) Master's Thesis and Thesis Disputation

- Thesis: Graded assessment (credit points): 30
- Colloquium (KO): Non-graded assessment (credit points): 0

Applicability of module

Required module in:

- Medieninformatik M.Sc. (SPO-Version: 12)
- Medieninformatik M.Sc. (SPO-Version: 11)
- Design Interaktiver Medien M.A. (SPO-Version: 12)
- Design Interaktiver Medien M.A. (SPO-Version: 11)
- MusicDesign M.A. (SPO-Version: 10)

Person responsible for module / lecturer

Person responsible for module:

- StudiendekanIn Design Interaktiver Medien M.A. / Medieninformatik M.Sc. / MusicDesign M.A.

Full-time lecturers:

a) Master's Thesis and Thesis Disputation

- Alle ProfessorInnen der Fakultät

Reading list (core texts and recommended texts)

a) Master's Thesis and Thesis Disputation

- Depending on the task
Within the framework of the elective module »Deepening MusicDesign« in principle the following modules are capable of accreditation. The modules will be completed with defined, additional, master adequate credits.

The accreditation takes place according to the needs of the applicant in individual consultation with the Dean of Studies.

Advanced Media Computer Science
Livemix and Sounddesign
Livesound for a Jazzconcert
Module Handbook MusicDesign (M.A.)

Dean of Studies: Prof. Dr. Norbert Schnell

Faculty Digitale Medien
Furtwangen University
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78120 Furtwangen