1.	**Field of study**	**Music in Multimedia**
2.	Faculty	Faculty of Fine Arts and Educational Science
3.	Academic year of entry	2025/2026 (winter term)
4.	Level of qualifications/degree	second-cycle studies
5.	Degree profile	practical
6.	Mode of study	full-time
7.	Academic year for which the revised course structure applies	2025/2026

Specialization: Sound

Programme modules

No.	Module	Lang.	E/C	form of teaching: Total	L	O	Total ECTS	year 1 / semester 1: L	O	E	year 1 / semester 2: L	O	E	year 2 / semester 3: L	O	E	year 2 / semester 4: L	O	E
1	Artistic project management	EN	C	18	18		1	18		1									
2	Computer science **[see description below]*	*	*	36		36	3		36	3									
3	Gesture capture	EN	C	18		18	2		18	2									
4	Real-time techniques **[see description below]*	*	*	48		48	4		48	4									
5	Web techniques **[see description below]*	*	*	24		24	2		24	2									
6	Optional courses 1 **[see description below]*	*	*	42		42	5					42	5						
7	Optional courses 4 **[see description below]*	*	*	28		28	3					28	3						
8	Academic writing and research methods	EN	C	15	15		1							15		1			
9	Finansing and budgeting	EN	C	15		15	1								15	1			
10	Mood board	EN	C	15		15	1								15	1			
11	Optional courses 12 **[see description below]*	*	*	30		30	10								30	10			
12	Optional courses 13 **[see description below]*	*	*	30		30	3								30	3			
13	Optional courses 17 **[see description below]*	*	*	15	15		1							15		1			
14	Optional courses 5 **[see description below]*	*	*	15	15		1							15		1			
15	Optional courses 6 **[see description below]*	*	*	15	15		1							15		1			
16	Optional courses 7 **[see description below]*	*	*	15		15	1								15	1			
17	Optional Courses 8 **[see description below]*	*	*	15	15		1							15		1			
18	Optional Courses 9 **[see description below]*	*	*	15	15		1							15		1			
19	Storytelling	EN	C	15		15	1								15	1			
20	Video game design - logic and game mechanics	EN	E	15	15		1							15		1			
21	Video game production	EN	E	15	15		1							15		1			
	TOTAL Programme modules:			**454**	**138**	**316**	**45**	**18**	**126**	**12**	**0**	**70**	**8**	**120**	**120**	**25**	**0**	**0**	**0**

Internships and Master Thesis

No.	Module	Lang.	E/C	form of teaching: Total	L	O	Total ECTS	year 1 / semester 1: L	O	E	year 1 / semester 2: L	O	E	year 2 / semester 3: L	O	E	year 2 / semester 4: L	O	E
1	Dissertation (Master Thesis)	EN	E	30		30	10											30	10
2	Project IV / Internship	EN	C	360		360	20											360	20
	TOTAL Internships and Master Thesis:			**390**	**0**	**390**	**30**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**390**	**30**

Major modules

No.	Module	Lang.	E/C	form of teaching: Total	L	O	Total ECTS	year 1 / semester 1: L	O	E	year 1 / semester 2: L	O	E	year 2 / semester 3: L	O	E	year 2 / semester 4: L	O	E
1	Acoustics	EN	C	24	24		2	24		2										
2	Computer-assisted composition *[see description below]	*	*	24		24	2		24	2										
3	History of music *[see description below]	*	*	27	27		2	27		2										
4	Music studio techniques *[see description below]	*	*	32		32	4		32	4										
5	Project I (Major Sound) *[see description below]	*	*	84	16	68	6	16	68	6										
6	Signal processing	EN	E	30	12	18	2	12	18	2										
7	Optional Courses 3 *[see description below]	*	*	42		42	5					42	5							
8	Project II Post-Production Sound Design	EN	E	70		70	12					70	12							
9	Sound Production for Video Games	EN	E	42		42	5					42	5							
10	Optional courses 10 *[see description below]	*	*	30		30	2								30	2				
11	Optional Courses 15 *[see description below]	*	*	15		15	2								15	2				
12	Optional courses 16 *[see description below]	*	*	15		15	1								15	1				
	TOTAL Major modules:			**435**	**79**	**356**	**45**	**79**	**142**	**18**	**0**	**154**	**22**	**0**	**60**	**5**	**0**	**0**	**0**
	TOTAL:			**1279**	**217**	**1062**	**120**	**365**		**30**	**224**		**30**	**300**		**30**	**390**		**30**
	TOTAL EXCLUDING INTERNSHIPS							**919**												
	TOTAL							**1279**												

The study ends with the awarding of a Master's Degree in the field of muzyka w multimediach: Sound.

* Groups of modules

Computer-assisted composition

Description:

The "Computer-assisted Composition" group of modules focuses on advanced techniques for creating music using computers and sound-generating software. The "Computer Music Composition" module introduces students to music programming, using algorithms for sound creation, and integrating computer technology into the composition process. Students can work with various tools and programming environments that allow for creative and experimental approaches to music-making. The module also covers computer music theory and focuses on designing and producing original musical compositions. The "CAD – Introduction to Generative AI" module introduces students to the fundamental concepts and tools of artificial intelligence applied to music creation. The course explores using machine learning algorithms and neural networks in sound composition and the development of new artistic forms. Participants will experiment with AI tools for sound analysis and synthesis, developing collaboration skills with advanced sound creation technologies.
The student completes two modules for a total of 2 ECTS points and a total of 24 academic hours.

Modules:	Lang.	E/C	L	O	ECTS
CAD – Introduction to Generative AI	EN	C		12	1
Computer music composition	EN	C		12	1

Computer science

Description:

The "Computer Science" group offers students comprehensive knowledge of operating systems, computer algorithms, and Python programming, essential in creative work within new media. The "Linux, Mac, PC, systems" module introduces various operating systems, such as Linux, Mac OS, and Windows, teaching their structures and tools used in digital production. "Algorithms" introduces students to the fundamentals of algorithms and their applications in digital art, teaching process optimization, and data management. The "Python" module provides a solid foundation in programming in one of the most popular languages, enabling students to develop skills necessary for working in data analysis, process automation, and application development. These courses prepare students to apply computer technologies in artistic and digital projects effectively.
The student completes three modules for a total of 3 ECTS points and a total of 36 academic hours.

Modules:	Lang.	E/C	L	O	ECTS
Algorithms	EN	C		12	1
Linux environment, Mac, PC, systems	EN	C		12	1

Python	EN	C		12	1

History of music

Description:
The "History of Music" group of modules provides students with a comprehensive introduction to key phenomena and the development of music in the 20th and 21st centuries. These modules focus on the evolution of electronic music and contemporary musical movements, emphasizing the impact of technology and new media on artistic creation. Students will become familiar with pioneers of electronic music, such as Karlheinz Stockhausen and Wendy Carlos, and key movements in the genre, like musique concrète, ambient, and techno. The "History of Electronic Music" module will provide an understanding of the role of technology in the evolution of musical aesthetics. In contrast, the "History of Contemporary Music" module will allow students to analyze the impact of minimalism, postmodernism, and experimental music on contemporary artistic practices. Both modules will address the social, cultural, and technological contexts that influenced the development of contemporary music. The student completes two modules for a total of 2 ECTS points and a total of 27 academic hours.

Modules:	Lang.	**E/C**	**L**	**O**	**ECTS**
History of contemporary music	EN	E	15		1
History of Electronic Music	EN	E	12		1

Music studio techniques

Description:
The "Music Studio Techniques" group focuses on teaching practical skills related to working in a professional recording studio. The "Studio Techniques" module introduces students to studio techniques, covering the operation of studio equipment, sound recording techniques, and audio postproduction. Students will become familiar with tools and technologies used in professional music environments, learning to record, mix, and edit audio material. The course includes hands-on classes, allowing students to work in real-world studio conditions. The "Studio Techniques (Ohmnibus)" module comprehensively introduces the fundamental techniques of working in a professional recording studio, focusing on recording, mixing, and sound editing. Students work with modern equipment and software, learning techniques like microphone placement, acoustic space arrangement, and selecting appropriate tools for sound production. The course also emphasizes teamwork and communication in the context of music production. This group of modules equips participants with the knowledge and experience necessary to work in professional recording studios. The student completes two modules for a total of 4 ECTS points and a total of 32 academic hours.

Modules:	Lang.	**E/C**	**L**	**O**	**ECTS**
Studio techniques	EN	C		12	2
Studio Techniques (Ohmnibus)	EN	C		20	2

Optional courses 1

Description:
The "Optional Courses 1" group includes modules that allow students to develop skills in the field of digital creativity, merging technology with artistic expression. The "Tangible Interfaces and Physical Computing" module introduces participants to the design of interactive systems that bridge the digital and physical worlds, offering hands-on experience with microcontrollers, sensors, and actuators. Meanwhile, the "Electronic Production" module encourages experimentation with sound and visual production in the context of digital art, using modern technologies to create visual effects and music compositions. Both courses focus on interactive learning, developing technical and creative skills, and encouraging group work on individual and collaborative artistic projects. Students will acquire theoretical and practical knowledge, enabling them to use modern tools in various creative contexts creatively. The student chooses one module from two for 5 ECTS points and 42 academic hours.

Modules:	Lang.	**E/C**	**L**	**O**	**ECTS**
Electronic Production	EN	E		42	5
Tangible Interfaces and Physical Computing	EN	E		42	5

Optional Courses 3

Description:
The "Optional Courses 3" group module combines theory and practice in sound art and technology. In the "Soundtrack for Film" module, students will explore key aspects of film music composition, sound design, and audio editing, engaging in creative work on soundtracks for film productions. The course analyzes existing soundtracks and practical tasks related to composing music and sound effects. The second module, "Sound Arts and Technologies," introduces students to modern sound technologies, enabling them to experiment with various tools and techniques in an artistic context. The course covers audio equipment operation, sound programming, and sound interaction design, allowing students to create unique sound projects in diverse multimedia environments. The student chooses one module from two for 5 ECTS points and 42 academic hours.

Modules:	Lang.	**E/C**	**L**	**O**	**ECTS**
Sound arts and technologies	EN	E		42	5
Soundtrack for Film	EN	E		42	5

Optional courses 4

Description:					
The "Interdisciplinary Seminar" and "Art Theory" modules allow students to explore complex issues related to digital creativity and art. The "Interdisciplinary Seminar" analyzes contemporary challenges by integrating various fields and methodologies, enhancing critical thinking, teamwork, and presentation skills. Students actively participate in discussions, research, and analysis of projects related to digital art and science. The "Art Theory" module allows students to explore key artistic theories that have shaped the development of art from classical to contemporary periods. Students analyze the relationship between art, science, technology, and culture, particularly in a digital context. These courses enhance skills in analysis, interpretation, and the development of personal artistic theories. The student chooses one module from two for 3 ECTS points and 28 academic hours.					
Modules:	Lang.	**E/C**	**L**	**O**	**ECTS**
Art Theory	EN	E	28		3
Interdisciplinary Seminar	EN	E		28	3

Optional courses 5

Description:					
The "Optional courses 5" group focuses on an interdisciplinary approach to visual, performing, and media arts, emphasizing the interconnections between different artistic forms. The "Interpenetration of the Arts (Visual and Performing Arts Interconnections)" module enables students to explore creative processes that merge painting, sculpture, theatre, dance, and multimedia, offering theoretical foundations and examples of contemporary artworks. Meanwhile, the "Interpenetration of the Arts (Sound and Media Arts Synergies)" module examines the interaction between sound art and media, with an emphasis on modern technologies and digital creativity. Students will have the opportunity to experiment with the integration of various media, allowing them to create innovative artistic projects. Completing these modules equips students with skills in creatively blending different forms of art and fosters reflection on the role of technology in contemporary art. The student chooses one module from two for 1 ECTS points and 15 academic hours.					
Modules:	Lang.	**E/C**	**L**	**O**	**ECTS**
Interpenetration of the Arts (Sound and Media Arts Synergies)	EN	E	15		1
Interpenetration of the arts (Visual and Performing Arts Interconnections)	EN	E	15		1

Optional courses 6

Description:					
The “Optional courses 6” module group focuses on modern extended reality (XR) technologies, including virtual reality (VR), augmented reality (AR), and mixed reality (MR). The courses aim to introduce students to the fundamentals of XR technologies, their applications in various fields of art and media, and current trends and production tools. These modules blend theory with practice, offering insights into analyzing and creating XR projects and showcasing real-world industry examples. Students will explore the impact of XR on contemporary digital and artistic creativity, as well as technological and societal challenges related to its adoption. The program equips students with the skills necessary to work with XR in the context of innovation and modern artistic production. The student chooses one module from two for 1 ECTS points and 15 academic hours.					
Modules:	Lang.	**E/C**	**L**	**O**	**ECTS**
Extended Reality Technologies (Applications in Art and Media)	EN	E	15		1
Extended Reality Technologies (Foundations and Future Trends)	EN	E	15		1

Optional courses 7

Description:					
The "Optional courses 7" group includes modules related to technologies used in audio and visual production. The "DAW Programs" module introduces students to the principles of Digital Audio Workstation (DAW) software, teaching them how to use tools for recording, editing, mixing, and producing sound effectively. The classes are based on practical exercises that help students develop the necessary skills for audio projects. The "Editing Programs" module focuses on image editing techniques, teaching both basic and advanced functions of popular graphics programs. Students will learn how to process and create visual content, applying these techniques in a creative context. Both modules emphasize a practical approach and the development of creative skills in multimedia production. The student chooses one module from two for 1 ECTS points and 15 academic hours.					
Modules:	Lang.	**E/C**	**L**	**O**	**ECTS**
DAW programs	EN	C		15	1
Editing programs	EN	C		15	1

Optional Courses 8

Description:
The "Optional Courses 8" module group focuses on the role of music in various audiovisual media, such as films and video games. Students will explore advanced compositional techniques, analyzing how music influences emotions, storytelling, and image perception. These modules provide a comprehensive overview of the history of film music and contemporary trends, including the use of electronic music and new technologies. In the context of video games, participants will learn how music integrates with game mechanics, interactivity, and player engagement. During the classes, students will develop analytical and interpretative skills and creativity in composing music for different media. These modules offer an excellent opportunity for in-depth discussions on the role of music in modern audiovisual production. The student chooses one module from two for 1 ECTS points and 15 academic hours.

Modules:	Lang.	E/C	L	O	ECTS
Music in films	EN	E	15		1
Music in video games	EN	E	15		1

Optional Courses 9

Description:
The "Optional Courses 9" group includes two modules introducing students to music and film production. The "Music Production" module guides students through key stages of music creation, such as composition, arrangement, recording, editing, and mixing, using modern music production tools. The "Film Production" module offers insights into the film production process, covering concept development, production planning, and post-production while exploring key roles on a film set. Both courses aim to develop students' creative and organizational skills, preparing them for future work in international teams where technology and creativity are essential. The student chooses one module from two for 1 ECTS points and 15 academic hours.

Modules:	Lang.	E/C	L	O	ECTS
Film production	EN	E	15		1
Music production	EN	E	15		1

Optional courses 10

Description:
The "Optional Courses 10" group includes two courses focusing on different aspects of sound recording, both in the context of acoustic instruments, voice, and choir, as well as electric instruments and electronics. The "Recording of Acoustic Instruments, Voice and Choir" module introduces sound recording techniques in various acoustic environments, emphasizing microphone placement, instrument positioning, and optimizing recording spaces. Meanwhile, the "Recording of the Amplified Instruments, Voice, and Electronics" module focuses on recording and processing sound for electric instruments, voice, and electronics, allowing students to develop music production and electronic signal processing skills. Both courses offer a broad range of practical experiences, enabling students to acquire theoretical and practical skills for working in a professional recording environment and enhancing individual abilities in music production. The student chooses one module from two for 2 ECTS points and 30 academic hours.

Modules:	Lang.	E/C	L	O	ECTS
Recording of Acoustic Instruments, Voice and Choir	EN	C		30	2
Recording of the ampliifed instruments, voice and eletronics	EN	C		30	2

Optional courses 12

Description:
The "Optional Courses 12" group consists of practical modules that allow students to develop their artistic skills in the context of digital and film arts. In the "Project III (Composition workshop)" module, participants will work on their compositional projects using modern tools and techniques in music, sound, and other digital art forms. The workshops allow for group collaboration and individual support, fostering the exchange of ideas and enhancing creativity. The "Project III (Film Workshop)" module focuses on practical work within a film project, developing scripting, directing, production, and post-production skills. Students collaborate in groups, experimenting with various film techniques and technologies. The module combines artistic and scientific aspects, supporting creativity development and teamwork in an international context. Participants prepare a film project, which will be assessed at the end. The student chooses one module from two for 10 ECTS points and 30 academic hours.

Modules:	Lang.	E/C	L	O	ECTS
Project III (Composition Workshop)	EN	E		30	10
Project III (Film Workshop)	EN	E		30	10

Optional courses 13

Description:
The "Optional Courses 13" group consists of workshops designed to enhance artistic and technical skills in audiovisual production. The "Sound Studio" module focuses on working with sound, allowing students to experiment with recording, editing, and sound post-production techniques. Participants develop their creative abilities by working on individual projects. The "Film Studio" module centers on the practical filmmaking process, covering all stages from concept development to post-production. Students learn teamwork, camera operation, directing, lighting, and sound. Both modules emphasize creativity, collaboration, and the development of personal artistic projects, providing participants with valuable practical and technical skills in an international environment. The student chooses one module from two for 3 ECTS points and 30 academic hours.

Modules:	Lang.	E/C	L	O	ECTS
Film Studio	EN	C		30	3
Sound Studio	EN	C		30	3

Optional Courses 15

Description:
The "Optional Courses 15" module group focuses on advanced topics in sound post-production and sound effects for audiovisual projects. Students develop skills in creating, editing, and integrating sound with visuals, mastering techniques like mixing, mastering, and sound synchronization. The courses include hands-on workshops utilizing professional software and sound tools, encouraging experimentation with modern technological solutions. Participants work individually and in teams, completing projects reflecting their creativity and technical expertise. These modules foster creative growth, preparing students for artistic and commercial sound production contexts. The outcome is creating sound projects showcasing the acquired knowledge and skills. The student chooses one module from two for 2 ECTS points and 15 academic hours.

Modules:	Lang.	E/C	L	O	ECTS
Sound effects	EN	C		15	2
Sound post-production	EN	C		15	2

Optional courses 16

Description:
The "Optional Courses 16" group offers participants a broad range of skills in contemporary music and sound technology. The "Composing Techniques of the 20th and 21st Centuries" module introduces diverse methods of music creation that have shaped modern compositions. Workshop sessions provide opportunities to experiment with contemporary compositional tools and analyze music examples from the 20th and 21st centuries. On the other hand, the "Virtual Instruments" module immerses students in the world of advanced sound tools, offering hands-on experience with various virtual instruments and effects. Participants develop technical and creative skills, effectively learning to use virtual instruments in music production. Both modules aim to enhance participants' artistic style and analytical abilities while promoting an interdisciplinary approach that blends compositional traditions with modern musical and technological trends. The student chooses one module from two for 1 ECTS points and 15 academic hours.

Modules:	Lang.	E/C	L	O	ECTS
Composing techniques of the 20th and 21st centuries	EN	C		15	1
Virtual instruments	EN	C		15	1

Optional courses 17

Description:
The "Optional Courses 17" group comprises two modules introducing students to various aspects of VR technology applications in both practical and creative fields. The "VR in Utility Forms" module focuses on using VR in education, healthcare, manufacturing, and design, addressing both the technical aspects of its implementation and the impact of this technology on users. Students learn to create VR solutions tailored to specific user needs, analyzing case studies from different sectors. Meanwhile, the "VR in Creative Industries" module explores the role of VR in creative industries, such as art, film, video games, and spatial design, and the challenges of implementing this technology in artistic contexts. The courses develop critical thinking, creativity, and innovative VR design skills, emphasizing the importance of this technology in transforming production methods. The student chooses one module from two for 1 ECTS points and 15 academic hours.

Modules:	Lang.	E/C	L	O	ECTS
VR in creative industries	EN	E	15		1
VR in Utility Forms	EN	E	15		1

Project I (Major Sound)

Description:
The "Project I (Major Sound)" group focuses on developing compositional skills and creating music in sound-related contexts, including electroacoustic and media applications. The "Composition 1" and "Composition 2" modules enable students to refine compositional techniques, from classical orchestration to experimental approaches, with individual mentor consultations. "Electroacoustic Composition 1" and "Electroacoustic Composition 2" introduce students to electroacoustic music, teaching advanced sound synthesis, editing, and mixing techniques. The "Sound Design" module allows creative exploration of sound creation for films, video games, and other visual media, focusing on experimenting with sound effects and field recordings. "Musical Composition for Images" focuses on composing music for visual media, particularly films, advertisements, and video games. These modules foster creativity, enabling students to work on original sound and music projects that are evaluated based on artistic and technical quality. The courses involve workshop sessions and individual presentations of students' work. The student completes six modules for a total of 6 ECTS points and a total of 84 academic hours.

Modules:	Lang.	E/C	L	O	ECTS
Composition 1	EN	C		9	1
Composition 2	EN	C		9	1
Electroacoustic Composition 1	EN	C	6	3	1

Electroacoustic Composition 2	EN	C	10	5	1
Musical Composition for Images	EN	E		30	1
Sound Design	EN	C		12	1

Real-time techniques

Description:					
The "Real-time techniques" group of modules focuses on developing skills in using real-time technologies to create and manipulate images and sound in digital art and science. The "Real-time Image" module allows students to explore techniques for generating and processing images, emphasizing interactivity, performance, and creative applications of technology. Participants will learn programming and use tools to create visual effects applicable to video games, art installations, and generative art. The "Real-time Audio" module introduces students to real-time audio processing technologies, teaching them to analyze, synthesize, and manipulate sound in interactive contexts. Both modules combine theory and practice, allowing students to enhance their technical and creative skills in the context of contemporary technologies and their applications in art. The student completes two modules for a total of 4 ECTS points and a total of 48 academic hours.					
Modules:	Lang.	**E/C**	**L**	**O**	**ECTS**
Real-time audio	EN	C		24	2
Real-time image	EN	C		24	2

Web techniques

Description:					
The "Web Techniques" group of modules covers key topics related to building modern web applications and integrating audio technologies into the web. The "Web Programming" module introduces students to creating dynamic web applications and teaches programming languages such as HTML, CSS, and JavaScript, essential for building interactive and responsive websites. The course focuses on creating functional and visually appealing websites, covering performance optimization and data security. The course concludes with implementing a practical web project, allowing students to apply the knowledge they have gained in real-world conditions. The "Web Audio" module introduces audio technologies in the context of web applications. Students will explore techniques for real-time sound manipulation, creating sound effects, and integrating audio with graphics and video on web pages. The course focuses on developing practical sound programming skills using the Web Audio API, enabling students to create interactive audio experiences in web applications. The student completes two modules for a total of 2 ECTS points and a total of 24 academic hours.					
Modules:	Lang.	**E/C**	**L**	**O**	**ECTS**
Web Audio	EN	C		12	1
Web programming	EN	C		12	1

Legend

Each semester consists of 15 weeks
E/C - exam/course work
E - ECTS
L - lecture, O - all forms of teaching excluding lecture (practical classes, laboratory classes, discussion classes, seminar, proseminar, language classes, field practice, workshop, internship, tutoring)

1.	**Field of study**	**Music in Multimedia**
2.	Faculty	Faculty of Fine Arts and Educational Science
3.	Academic year of entry	2025/2026 (winter term)
4.	Level of qualifications/degree	second-cycle studies
5.	Degree profile	practical
6.	Mode of study	full-time
7.	Academic year for which the revised course structure applies	2025/2026

Specialization: Image

Programme modules

No.	Module	Lang.	E/C	form of teaching: Total	L	O	Total ECTS	year 1 / semester 1: L	O	E	year 1 / semester 2: L	O	E	year 2 / semester 3: L	O	E	year 2 / semester 4: L	O	E
1	Artistic project management	EN	C	18	18		1	18		1									
2	Computer science **[see description below]*	*	*	36		36	3		36	3									
3	Gesture capture	EN	C	18		18	2		18	2									
4	Real-time techniques **[see description below]*	*	*	48		48	4		48	4									
5	Web techniques **[see description below]*	*	*	24		24	2		24	2									
6	Optional courses 1 **[see description below]*	*	*	42		42	5					42	5						
7	Optional courses 4 **[see description below]*	*	*	28		28	3					28	3						
8	Academic writing and research methods	EN	C	15	15		1							15		1			
9	Finansing and budgeting	EN	C	15		15	1								15	1			
10	Mood board	EN	C	15		15	1								15	1			
11	Optional courses 12 **[see description below]*	*	*	30		30	10								30	10			
12	Optional courses 13 **[see description below]*	*	*	30		30	3								30	3			
13	Optional courses 17 **[see description below]*	*	*	15	15		1							15		1			
14	Optional courses 5 **[see description below]*	*	*	15	15		1							15		1			
15	Optional courses 6 **[see description below]*	*	*	15	15		1							15		1			
16	Optional courses 7 **[see description below]*	*	*	15		15	1								15	1			
17	Optional Courses 8 **[see description below]*	*	*	15	15		1							15		1			
18	Optional Courses 9 **[see description below]*	*	*	15	15		1							15		1			
19	Storytelling	EN	C	15		15	1								15	1			
20	Video game design - logic and game mechanics	EN	E	15	15		1							15		1			
21	Video game production	EN	E	15	15		1							15		1			
	TOTAL Programme modules:			**454**	**138**	**316**	**45**	**18**	**126**	**12**	**0**	**70**	**8**	**120**	**120**	**25**	**0**	**0**	**0**

Internships and Master Thesis

No.	Module	Lang.	E/C	form of teaching: Total	L	O	Total ECTS	year 1 / semester 1: L	O	E	year 1 / semester 2: L	O	E	year 2 / semester 3: L	O	E	year 2 / semester 4: L	O	E
1	Dissertation (Master Thesis)	EN	E	30		30	10											30	10
2	Project IV / Internship	EN	C	360		360	20											360	20
	TOTAL Internships and Master Thesis:			**390**	**0**	**390**	**30**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**390**	**30**

Major modules

No.	Module	Lang.	E/C	form of teaching: Total	L	O	Total ECTS	year 1 / semester 1: L	O	E	year 1 / semester 2: L	O	E	year 2 / semester 3: L	O	E	year 2 / semester 4: L	O	E
1	Arts and new media	EN	C	27	27		2	27		2										
2	Design theory *[see description below]	*	*	51		51	4		51	4										
3	Digital Visual Design for Games *[see description below]	*	*	24		24	3		24	3										
4	History and theory of the arts	EN	E	27	27		2	27		2										
5	Project I (Major Image) *[see description below]	*	*	64		64	6		64	6										
6	Special Effects	EN	C	28		28	1		28	1										
7	Aesthetics and Digital Art Ecology	EN	E	42	42		5				42		5							
8	Optional courses 2 *[see description below]	*	*	42		42	5					42	5							
9	Project II (Digital Creation Laboratory)	EN	E	70		70	12					70	12							
10	Optional courses 11 *[see description below]	*	*	30		30	2								30	2				
11	Optional courses 14 *[see description below]	*	*	15		15	2								15	2				
12	Optional courses 18 *[see description below]	*	*	15		15	1								15	1				
	TOTAL Major modules:			**435**	**96**	**339**	**45**	**54**	**167**	**18**	**42**	**112**	**22**	**0**	**60**	**5**	**0**	**0**	**0**
	TOTAL:			**1279**	**234**	**1045**	**120**	**365**		**30**	**224**		**30**	**300**		**30**	**390**		**30**
	TOTAL EXCLUDING INTERNSHIPS							**919**												
	TOTAL							**1279**												

The study ends with the awarding of a Master's Degree in the field of muzyka w multimediach: Image.

* Groups of modules

Computer science

Description:

The "Computer Science" group offers students comprehensive knowledge of operating systems, computer algorithms, and Python programming, essential in creative work within new media. The "Linux, Mac, PC, systems" module introduces various operating systems, such as Linux, Mac OS, and Windows, teaching their structures and tools used in digital production. "Algorithms" introduces students to the fundamentals of algorithms and their applications in digital art, teaching process optimization, and data management. The "Python" module provides a solid foundation in programming in one of the most popular languages, enabling students to develop skills necessary for working in data analysis, process automation, and application development. These courses prepare students to apply computer technologies in artistic and digital projects effectively.
The student completes three modules for a total of 3 ECTS points and a total of 36 academic hours.

Modules:	Lang.	E/C	L	O	ECTS
Algorithms	EN	C		12	1
Linux environment, Mac, PC, systems	EN	C		12	1
Python	EN	C		12	1

Design theory

Description:

The "Design Theory" group focuses on developing theoretical and practical skills in object and space design in digital and physical contexts. The "Design objects" module introduces students to the key principles of designing objects in digital and physical dimensions, combining theory with practical aspects of the creative design process. This course explores aesthetics, functionality, and innovation issues, helping students develop critical thinking and design decision-making skills. Meanwhile, the "Set Design" module offers an interdisciplinary approach to designing visual spaces, focusing on the processes of creating spaces that support visual storytelling in media, such as films, video games, and interactive installations. This module explores the theory, history, and contemporary tools used in visual space design, emphasizing innovation and creativity in spatial design approaches.
The student completes two modules for a total of 4 ECTS points and a total of 51 academic hours.

Modules:	Lang.	E/C	L	O	ECTS
Design objects	EN	C	27		2
Set Design	EN	C	24		2

Digital Visual Design for Games

Description:					
The "Digital Visual Design for Games" group focuses on teaching the practical aspects of visual design in video game production, covering key 3D and animation techniques. The "3D Visual Elements for Video Games" module allows students to explore the processes of 3D modeling, texturing, and basic animation and their integration into game engines. Participants learn to use industry-standard tools while developing artistic and technical skills and expanding their portfolios with 3D graphics projects. The "Animation in Video Game" module introduces students to essential aspects of animation creation for games, focusing on motion mechanics, animation principles, and interactions with the environment. This course emphasizes teamwork in interdisciplinary projects and aims to develop skills in analyzing, designing, and implementing animations tailored to the specific needs of video games. The student completes two modules for a total of 3 ECTS points and a total of 24 academic hours.					
Modules:	Lang.	**E/C**	**L**	**O**	**ECTS**
3D Visual Elements for Video Games	EN	C		12	1
Animation in video game	EN	E		12	2

Optional courses 1

Description:					
The "Optional Courses 1" group includes modules that allow students to develop skills in the field of digital creativity, merging technology with artistic expression. The "Tangible Interfaces and Physical Computing" module introduces participants to the design of interactive systems that bridge the digital and physical worlds, offering hands-on experience with microcontrollers, sensors, and actuators. Meanwhile, the "Electronic Production" module encourages experimentation with sound and visual production in the context of digital art, using modern technologies to create visual effects and music compositions. Both courses focus on interactive learning, developing technical and creative skills, and encouraging group work on individual and collaborative artistic projects. Students will acquire theoretical and practical knowledge, enabling them to use modern tools in various creative contexts creatively. The student chooses one module from two for 5 ECTS points and 42 academic hours.					
Modules:	Lang.	**E/C**	**L**	**O**	**ECTS**
Electronic Production	EN	E		42	5
Tangible Interfaces and Physical Computing	EN	E		42	5

Optional courses 2

Description:					
The "Optional Courses 2" module group allows students to develop artistic and technological skills in the context of visual and digital arts. The "Creative Code and Algorithm in Art" module uses programming and algorithms in creative processes, enabling participants to experiment with generative art, animations, and interactive applications. The "Modeling and Digital Sculpture" module introduces advanced 3D modeling and digital sculpture techniques, preparing students to create models for virtual reality visualization or 3D printing. Both modules emphasize creativity, an individual approach to projects, and the practical application of acquired knowledge. Workshops allow students to work individually and in groups, developing their projects with guidance from instructors and experts. Participants can tailor their projects to their interests, fostering creative exploration and interdisciplinary approaches. The student chooses one module from two for 5 ECTS points and 42 academic hours.					
Modules:	Lang.	**E/C**	**L**	**O**	**ECTS**
Creative Code and Algorithm in Art	EN	E		42	5
Modeling and Digital Sculpture	EN	E		42	5

Optional courses 4

Description:					
The "Interdisciplinary Seminar" and "Art Theory" modules allow students to explore complex issues related to digital creativity and art. The "Interdisciplinary Seminar" analyzes contemporary challenges by integrating various fields and methodologies, enhancing critical thinking, teamwork, and presentation skills. Students actively participate in discussions, research, and analysis of projects related to digital art and science. The "Art Theory" module allows students to explore key artistic theories that have shaped the development of art from classical to contemporary periods. Students analyze the relationship between art, science, technology, and culture, particularly in a digital context. These courses enhance skills in analysis, interpretation, and the development of personal artistic theories. The student chooses one module from two for 3 ECTS points and 28 academic hours.					
Modules:	Lang.	**E/C**	**L**	**O**	**ECTS**
Art Theory	EN	E	28		3
Interdisciplinary Seminar	EN	E		28	3

Optional courses 5

Description:					
The "Optional courses 5" group focuses on an interdisciplinary approach to visual, performing, and media arts, emphasizing the interconnections between different artistic forms. The "Interpenetration of the Arts (Visual and Performing Arts Interconnections)" module enables students to explore creative processes that merge painting, sculpture, theatre, dance, and multimedia, offering theoretical foundations and examples of contemporary artworks. Meanwhile, the "Interpenetration of the Arts (Sound and Media Arts Synergies)" module examines the interaction between sound art and media, with an emphasis on modern technologies and digital creativity. Students will have the opportunity to experiment with the integration of various media, allowing them to create innovative artistic projects. Completing these modules equips students with skills in creatively blending different forms of art and fosters reflection on the role of technology in contemporary art. The student chooses one module from two for 1 ECTS points and 15 academic hours.					
Modules:	Lang.	**E/C**	**L**	**O**	**ECTS**
Interpenetration of the Arts (Sound and Media Arts Synergies)	EN	E	15		1
Interpenetration of the arts (Visual and Performing Arts Interconnections)	EN	E	15		1

Optional courses 6

Description:					
The “Optional courses 6” module group focuses on modern extended reality (XR) technologies, including virtual reality (VR), augmented reality (AR), and mixed reality (MR). The courses aim to introduce students to the fundamentals of XR technologies, their applications in various fields of art and media, and current trends and production tools. These modules blend theory with practice, offering insights into analyzing and creating XR projects and showcasing real-world industry examples. Students will explore the impact of XR on contemporary digital and artistic creativity, as well as technological and societal challenges related to its adoption. The program equips students with the skills necessary to work with XR in the context of innovation and modern artistic production. The student chooses one module from two for 1 ECTS points and 15 academic hours.					
Modules:	Lang.	**E/C**	**L**	**O**	**ECTS**
Extended Reality Technologies (Applications in Art and Media)	EN	E	15		1
Extended Reality Technologies (Foundations and Future Trends)	EN	E	15		1

Optional courses 7

Description:					
The "Optional courses 7" group includes modules related to technologies used in audio and visual production. The "DAW Programs" module introduces students to the principles of Digital Audio Workstation (DAW) software, teaching them how to use tools for recording, editing, mixing, and producing sound effectively. The classes are based on practical exercises that help students develop the necessary skills for audio projects. The "Editing Programs" module focuses on image editing techniques, teaching both basic and advanced functions of popular graphics programs. Students will learn how to process and create visual content, applying these techniques in a creative context. Both modules emphasize a practical approach and the development of creative skills in multimedia production. The student chooses one module from two for 1 ECTS points and 15 academic hours.					
Modules:	Lang.	**E/C**	**L**	**O**	**ECTS**
DAW programs	EN	C		15	1
Editing programs	EN	C		15	1

Optional Courses 8

Description:					
The "Optional Courses 8" module group focuses on the role of music in various audiovisual media, such as films and video games. Students will explore advanced compositional techniques, analyzing how music influences emotions, storytelling, and image perception. These modules provide a comprehensive overview of the history of film music and contemporary trends, including the use of electronic music and new technologies. In the context of video games, participants will learn how music integrates with game mechanics, interactivity, and player engagement. During the classes, students will develop analytical and interpretative skills and creativity in composing music for different media. These modules offer an excellent opportunity for in-depth discussions on the role of music in modern audiovisual production. The student chooses one module from two for 1 ECTS points and 15 academic hours.					
Modules:	Lang.	**E/C**	**L**	**O**	**ECTS**
Music in films	EN	E	15		1
Music in video games	EN	E	15		1

Optional Courses 9

Description:					
The "Optional Courses 9" group includes two modules introducing students to music and film production. The "Music Production" module guides students through key stages of music creation, such as composition, arrangement, recording, editing, and mixing, using modern music production tools. The "Film Production" module offers insights into the film production process, covering concept development, production planning, and post-production while exploring key roles on a film set. Both courses aim to develop students' creative and organizational skills, preparing them for future work in international teams where technology and creativity are essential. The student chooses one module from two for 1 ECTS points and 15 academic hours.					

Modules:	Lang.	E/C	L	O	ECTS
Film production	EN	E	15		1
Music production	EN	E	15		1

Optional courses 11

Description:
The "Optional Courses 11" group covers advanced filmmaking techniques such as motion capture, performance capture, stop-motion animation, motion control, time-lapse, slow motion, 360-degree filmmaking, and dolly zoom. Participants will gain the knowledge and skills to apply these methods in film production, working with professional equipment and software. The modules focus on the practical use of these techniques, allowing students to work in teams on film projects. Through these courses, students will enhance their technical skills and creativity, enabling them to create unique visual effects and film compositions. The courses require active participation and independent work, including project preparation. Upon completion, students will be fully prepared to apply specialized techniques in film production. The student chooses one module from two for 2 ECTS points and 30 academic hours.

Modules:	Lang.	E/C	L	O	ECTS
Special Techniques in Filmmaking (Motion Capture, Performance Capture, Stop-Motion Animation)	EN	C		30	2
Special Techniques in Filmmaking (Motion Control, Time-Lapse, Slow Motion, 360 Degree Filmmaking, Dolly Zoom)	EN	C		30	2

Optional courses 12

Description:
The "Optional Courses 12" group consists of practical modules that allow students to develop their artistic skills in the context of digital and film arts. In the "Project III (Composition workshop)" module, participants will work on their compositional projects using modern tools and techniques in music, sound, and other digital art forms. The workshops allow for group collaboration and individual support, fostering the exchange of ideas and enhancing creativity. The "Project III (Film Workshop)" module focuses on practical work within a film project, developing scripting, directing, production, and post-production skills. Students collaborate in groups, experimenting with various film techniques and technologies. The module combines artistic and scientific aspects, supporting creativity development and teamwork in an international context. Participants prepare a film project, which will be assessed at the end. The student chooses one module from two for 10 ECTS points and 30 academic hours.

Modules:	Lang.	E/C	L	O	ECTS
Project III (Composition Workshop)	EN	E		30	10
Project III (Film Workshop)	EN	E		30	10

Optional courses 13

Description:
The "Optional Courses 13" group consists of workshops designed to enhance artistic and technical skills in audiovisual production. The "Sound Studio" module focuses on working with sound, allowing students to experiment with recording, editing, and sound post-production techniques. Participants develop their creative abilities by working on individual projects. The "Film Studio" module centers on the practical filmmaking process, covering all stages from concept development to post-production. Students learn teamwork, camera operation, directing, lighting, and sound. Both modules emphasize creativity, collaboration, and the development of personal artistic projects, providing participants with valuable practical and technical skills in an international environment. The student chooses one module from two for 3 ECTS points and 30 academic hours.

Modules:	Lang.	E/C	L	O	ECTS
Film Studio	EN	C		30	3
Sound Studio	EN	C		30	3

Optional courses 14

Description:
The "Optional Courses 14" group includes two advanced modules that develop skills in image post-production and color grading in audiovisual production. The "Image Post-Production and VFX (with Film Editing)" module introduces students to film editing techniques such as Chroma Keying, Matte Painting, CGI, and Digital Compositing, allowing for the creation of sophisticated visual effects. Participants also explore Deepfake technology, enhancing both their technical and creative skills. The "Color Grading" module focuses on color correction, enabling students to acquire the technical and artistic expertise necessary to shape the visual aesthetics of film productions. Both modules involve intensive project work that fosters analytical thinking and teamwork. The student chooses one module from two for 2 ECTS points and 15 academic hours.

Modules:	Lang.	E/C	L	O	ECTS
Color grading	EN	E		15	2
Post-produkcja obrazu i efekty wizualne (z montażem filmowym)	EN	C		15	2

Optional courses 17

Description:					
The "Optional Courses 17" group comprises two modules introducing students to various aspects of VR technology applications in both practical and creative fields. The "VR in Utility Forms" module focuses on using VR in education, healthcare, manufacturing, and design, addressing both the technical aspects of its implementation and the impact of this technology on users. Students learn to create VR solutions tailored to specific user needs, analyzing case studies from different sectors. Meanwhile, the "VR in Creative Industries" module explores the role of VR in creative industries, such as art, film, video games, and spatial design, and the challenges of implementing this technology in artistic contexts. The courses develop critical thinking, creativity, and innovative VR design skills, emphasizing the importance of this technology in transforming production methods. The student chooses one module from two for 1 ECTS points and 15 academic hours.					
Modules:	Lang.	**E/C**	**L**	**O**	**ECTS**
VR in creative industries	EN	E	15		1
VR in Utility Forms	EN	E	15		1

Optional courses 18

Description:					
The "Optional courses 18" group includes modules that foster creative development in both filmmaking and visual arts. The "Film Directing" module focuses on practical experimentation with various aspects of directing, from working with actors to managing film production. Students will have the opportunity to create short projects, develop film concepts, and refine their skills in making artistic and technical decisions. Meanwhile, the "Digital Photography and Graphics" module allows students to explore digital photography and graphic design tools, enabling them to create and edit visual works. The course combines theory with practice, providing students with the opportunity to develop their own photography and graphic design projects using advanced techniques and tools. Both modules offer a space for creative growth, experimentation with form and style, and adapting projects to contemporary industry standards. The student chooses one module from two for 1 ECTS points and 15 academic hours.					
Modules:	Lang.	**E/C**	**L**	**O**	**ECTS**
Digital Photography and Graphics	EN	C		15	1
Film directing	EN	C		15	1

Project I (Major Image)

Description:					
The "Project I (Major Image)" group focuses on creating and implementing image-related projects across various media, such as film, multimedia installations, and creative prototypes. The "Video Studio Techniques (Filming, Editing)" module introduces students to the fundamentals of video production, covering filming techniques, lighting, and video editing. Students gain practical experience working with cameras and editing software, creating their audiovisual content. The "Multimedia Installations" module enables students to design and build interactive multimedia installations, combining video, sound, image, and interactive technology. Participants learn how to create such installations in physical spaces, enhancing their technical and creative skills. The "Prototyping" module introduces techniques for making prototypes, both digital and analog, allowing students to test ideas before full-scale production. Students develop the skills needed to execute visual and digital art projects through these modules. The student completes three modules for a total of 6 ECTS points and a total of 64 academic hours.					
Modules:	Lang.	**E/C**	**L**	**O**	**ECTS**
Multimedia installations	EN	C		12	2
Prototyping	EN	C		12	1
Video studio techniques (filming, editing)	EN	C		40	3

Real-time techniques

Description:					
The "Real-time techniques" group of modules focuses on developing skills in using real-time technologies to create and manipulate images and sound in digital art and science. The "Real-time Image" module allows students to explore techniques for generating and processing images, emphasizing interactivity, performance, and creative applications of technology. Participants will learn programming and use tools to create visual effects applicable to video games, art installations, and generative art. The "Real-time Audio" module introduces students to real-time audio processing technologies, teaching them to analyze, synthesize, and manipulate sound in interactive contexts. Both modules combine theory and practice, allowing students to enhance their technical and creative skills in the context of contemporary technologies and their applications in art. The student completes two modules for a total of 4 ECTS points and a total of 48 academic hours.					
Modules:	Lang.	**E/C**	**L**	**O**	**ECTS**
Real-time audio	EN	C		24	2
Real-time image	EN	C		24	2

Web techniques

Description:					
The "Web Techniques" group of modules covers key topics related to building modern web applications and integrating audio technologies into the web. The "Web Programming" module introduces students to creating dynamic web applications and teaches programming languages such as HTML, CSS, and JavaScript, essential for building interactive and responsive websites. The course focuses on creating functional and visually appealing websites, covering performance optimization and data security. The course concludes with implementing a practical web project, allowing students to apply the knowledge they have gained in real-world conditions. The "Web Audio" module introduces audio technologies in the context of web applications. Students will explore techniques for real-time sound manipulation, creating sound effects, and integrating audio with graphics and video on web pages. The course focuses on developing practical sound programming skills using the Web Audio API, enabling students to create interactive audio experiences in web applications. The student completes two modules for a total of 2 ECTS points and a total of 24 academic hours.					
Modules:	Lang.	**E/C**	**L**	**O**	**ECTS**
Web Audio	EN	C		12	1
Web programming	EN	C		12	1

Legend

Each semester consists of 15 weeks
E/C - exam/course work
E - ECTS
L - lecture, O - all forms of teaching excluding lecture (practical classes, laboratory classes, discussion classes, seminar, proseminar, language classes, field practice, workshop, internship, tutoring)