

Title of the module Game Design I					
Code Number	Total workload (h)	ECTS-CRE-DITS	Semester	Frequency	Duration
1 GAME	270 (h)	9	1. Semester	annually	1 semester
1	Courses 1 Seminar	Contact hours (h) 90 (h)	Self-study (h) 180 (h)	planned group size 15 Students	
2	Learning outcomes / Competencies Game Design Fundamentals: The students have acquired the theoretical basics of analyzing, developing and evaluating (serious) games. They have dealt with the aesthetic, cultural, communicative, technical and structural aspects of the “game” phenomenon. The focus of consideration is the history, development, analysis and theory of digital games and learning environments.				
3	Contents Theoretical and practical development of the fundamental cultural, historical, aesthetic, communicative, technical and structural perspectives, concepts and solutions of the work and research fields in game design. Exercises on game design and game mechanics: basic idea/plot of a game, game world, game or puzzle mechanics, characters, equipment, tasks and obstacles, etc.				
4	Teaching forms Seminar teaching, Group work, Project work				
5	Participation requirements none				
6	Forms of examination Presentation of the semester work, Colloquium				
7	Prerequisites for awarding credit points Passed module exam				
8	Use of the module at the bachelor degree program Serious Games & Digital Knowledge				
9	Status of the grade for the final grade 2,42%				
10	Module representative – and full-time lecturer Prof. Dr. Daniel Heßler				
11	Other Information none				

Title of the module Concept Art I (2D)					
Code Number	Total workload (h)	ECTS-CRE-DITS	Semester	Frequency	Duration
2 GAME	270 (h)	9	1. Semester	annually	1 semester
1	Courses 1 Seminar	Contact hours (h) 90 (h)	Self-study (h) 180 (h)	planned group size 15 Students	
2	Learning outcomes / Competencies After successfully completing the module, the students have developed, differentiated and sensitized their perception skills. You have discovered and researched new possibilities of expression in the area of Concept Art / 2D. Their creative thinking was encouraged and they acquired basic creative skills and abilities. The developed drawing skills and technical skills enable and support further professional work. One or more characters are developed as well as a visual concept describing the conceptual, narrative and visual qualities of a novel game.				
3	Contents The focus of teaching is on graphic studies of form and function, cause and effect, as well as the relationships between texture, color, light and shadow. Both traditional and digital drawing techniques are used; Exercises and studies on character design, asset design, game physics and game environments. The focus is on the theoretical, but above all the practical development of basic knowledge and skills in the field of visualization of characters, game objects and game environments.				
4	Teaching forms Seminar teaching, Group work, Project work				
5	Participation requirements none				
6	Forms of examination Presentation of the semester work, Colloquium, University term paper				
7	Prerequisites for awarding credit points Passed module exam				
8	Use of the module at the bachelor degree program Serious Games & Digital Knowledge				
9	Status of the grade for the final grade 2,42%				
10	Module representative – and full-time lecturer Prof. Dr. Daniel Heßler				
11	Other Information none				

Title of the module Technique I					
Code Number	Total workload (h)	ECTS-CRE-DITS	Semester	Frequency	Duration
3 Game	150 (h)	5	1. Semester	annually	1 semester
1	Courses 2SV, 2E	Contact hours (h) 60 (h)	Self-study (h) 90 (h)	planned group size 30 Students / 15 Stud.	
2	<p>Learning outcomes / Competencies</p> <p>Technical and methodological expertise:</p> <ul style="list-style-type: none"> • Be able to name basic concepts and properties of formal languages, grammars and the associated automata. • Be able to convert the representation of languages between grammars, automata and regular expressions. • Mastering basic mathematical concepts of computer science and their methods such as set theory, relations, propositional logic, complex numbers as well as groups and fields. • Understanding of basic and advanced concepts and methods from linear algebra • Confident handling of the concepts and methods of vector and matrix calculations and their geometric interpretation, the setting up and solving of linear equation systems as well as dealing with straight lines and planes <p>Interdisciplinary methodological competence:</p> <ul style="list-style-type: none"> • Be able to independently assess and classify problems in terms of their complexity 				
3	<p>Contents</p> <ul style="list-style-type: none"> • Introduction to set theory, cardinality of sets, relations, basics of propositional logic, complex numbers, groups and fields. • Vectors and vector calculus: notation and interpretation, operations on vectors and their properties (addition, scalar multiplication, scalar product, cross product), vector spaces, length of vectors, collinearity, linear dependence and independence, concepts of dimension and basis, angles between vectors. • Matrices: Notation and interpretation, operations on matrices and their properties (transpose of matrices, addition, scalar multiplication, matrix multiplication), Gaussian algorithm, determinants, inverse matrices and their calculation • Linear systems of equations: motivation and applications, matrix-vector form of systems of linear equations, Gaussian algorithm for solving systems of linear equations, homogeneous and inhomogeneous systems of linear equations and their relationships, rank of a matrix and relation to the solution set of systems of linear equations • Formal languages and grammars: alphabet; Words: Languages; grammars; derivatives; Grammar types in the Chomsky hierarchy • Regular languages: programming of finite automata (deterministic and non-deterministic); minimizing vending machines; Regular Expressions; Conversion between grammars, automata and regular expressions; Closing properties, pumping lemma for regular languages • Context-free languages: pushdown machines; Chomsky normal form; Word problem with the CYK algorithm; closing characteristics; Pumping lemma for context-free languages • Turing machines: variants (deterministic and non-deterministic); Universal Turing Machines; 				
4	<p>Teaching forms</p> <p>The teaching methods are specifically designed for the course</p> <ul style="list-style-type: none"> • Lecture in interaction with the students, with board writing and projection, • lecture-accompanying exercise, • Solution of practical exercises in individual or team work, • Group work, • Individual work, • Presentation, • Mini exams during the semester for regular feedback 				
5	Participation requirements				

	none
6	Forms of examination written exam
7	Prerequisites for awarding credit points Passed module exam
8	Use of the module at the bachelor degree program Serious Games & Digital Knowledge
9	Status of the grade for the final grade 2,42%
10	Module representative – and full-time lecturer Prof. Dr. Uwe Schmitz
11	Other Information none

Title of the module Technique II					
Code Number	Total workload (h)	ECTS-CRE-DITS	Semester	Frequency	Duration
4 GAME	150 (h)	5	1. Semester	annually	1 semester
1	Courses 1SV 3E	Contact hours (h) 60 (h)	Self-study (h) 90 (h)	planned group size 30 Students / 15 Stud.	
2	<p>Learning outcomes / Competencies</p> <p>After completing the lecture, students have mastered the most important principles of object-oriented programming in detail and have a basic understanding of the structure and functionality of computers.</p> <p>Technical and methodological expertise:</p> <p>You acquire the formal competence to understand principles, methods, concepts and notations of programming in detail, to classify them in different contexts and to use them in object-oriented programs. This also includes identifying the algorithmic core of a simple problem and designing an imperative algorithm.</p> <p>You acquire basic analysis skills that enable you to implement simple object-oriented models in UML notation in the Java programming language.</p> <p>This competence also includes the ability to independently familiarize yourself with applications (such as development environments, learning platforms).</p> <p>You have the implementation skills to develop and analyze object-oriented programs in Java.</p>				
3	<p>Contents</p> <ul style="list-style-type: none"> • Procedures for the step-by-step development of programs • Elements of imperative programming: data types, control structures, operations • Elements of object-oriented programming: objects, classes, interfaces, inheritance, polymorphism • Description methods of object-oriented programming, e.g. UML 				
4	<p>Teaching forms</p> <p>The teaching methods are specifically designed for the course</p> <ul style="list-style-type: none"> • Lecture in interaction with the students, with board writing and projection, • Solution of practical exercises in individual or team work, • Processing programming tasks on the computer in individual or team work, • Active, self-directed learning through Internet-based tasks, sample solutions and accompanying materials. 				
5	<p>Participation requirements</p> <p>none</p>				
6	<p>Forms of examination</p> <p>written exam</p>				
7	<p>Prerequisites for awarding credit points</p> <p>Module exam</p>				
8	<p>Use of the module</p> <p>in the BA degree program Serious Gaming & Digital Knowledge</p>				
9	<p>Status of the grade for the final grade</p> <p>2,42%</p>				
10	<p>Module representative – and full-time lecturer</p> <p>Prof. Dr. Uwe Schmitz</p>				
11	<p>Other Information</p>				

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Title of the module Introduction to academic work					
Code Number	Total workload (h)	ECTS-CRE-DITS	Semester	Frequency	Duration
5 SK GAME	90 (h)	2	1. Semester	annually	1 semester
1	Courses 1 SV	Contact hours (h) 30 (h)	Self-study (h) 60 (h)	planned group size 30 Students	
2	Learning outcomes / Competencies After successfully passing, the students are able to: <ul style="list-style-type: none"> • to understand and implement formal criteria of a scientific work. • relevant scientific-theoretical foundations or research paradigms and their Explain the effects on scientific research results. • to differentiate basic research methods and characteristics of good scientific ones Explain practice. • Literature databases, literature management programs and additional library structures to use appropriately, avoid plagiarism and use citation styles correctly. • select a research topic and use it to create an outline for scientific texts to condense. • to transfer any evidence criteria to scientific texts. • a list of literature, figures, tables and abbreviations for scientific texts to put on. • to understand the different forms of scientific work at the FHD and distinguish from each other. 				
3	Contents <ul style="list-style-type: none"> • Scientific theoretical foundations and research paradigms • Application of good scientific practice • Methodology • Librarianship: structure, use and reference management • Forms of scientific work at the FHD 				
4	Teaching forms Seminar teaching, Group work, Project work				
5	Participation requirements none				
6	Forms of examination Presentation of the semester work, Colloquium (bitte ergänzen, ändern)				
7	Prerequisites for awarding credit points Passed module exam				
8	Use of the module at the bachelor degree program Serious Games & Digital Knowledge				
9	Status of the grade for the final grade 2,42%				
10	Module representative – and full-time lecturer LfbA Meike Noster / Fabian Dittrich (FB 9)				
11	Further literature <ul style="list-style-type: none"> ▪ Petra Heidler/Albin Krcal/Eva Krczal: <i>Wissenschaftliches Arbeiten für Vielbeschäftigte. Ein praktischer Leitfaden mit Beispielen, Anleitungen und Vorlagen.</i> Leverkusen, 2021. ▪ Johann August Schüleln/Simon Reitze: <i>Wissenschaftstheorie für Einsteiger.</i> Stuttgart, 2021. 				

	Ulrike Pospiech: <i>Wie schreibt man wissenschaftliche Arbeiten?: Von der Themenfindung bis zur Abgabe. Für University term paperen, Bachelor- und Masterarbeit.</i> Mannheim, 2017.
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Title of the module Interaction Design & User Experience					
Code Number	Total workload (h)	ECTS-CRE-DITS	Semester	Frequency	Duration
6 GAME	270 (h)	9	2. Semester	annually	1 semester
1	Courses 1 Seminar	Contact hours (h) 90 (h)	Self-study (h) 180 (h)	planned group size 15 Students	
2	Learning outcomes / Competencies The students have learned the fundamental aspects of interaction design, user-centered design and user experience design in terms of analysis, concept, design and implementation. You understand the implicit and explicit visual and communicative parameters and their effect. You have learned and practiced the basic methods and problem-solving strategies in design processes and can analyze, assess, design and implement technological and design use cases on this basis.				
3	Contents Analysis of existing products and services with regard to structure, design, organization and interaction options. Development of an interaction concept/application and its prototypical implementation under content, communicative and aesthetic aspects based on formal design parameters of interaction design and user experience design.				
4	Teaching forms Seminar teaching, Group work, Project work				
5	Participation requirements none				
6	Forms of examination Documentation, Presentation of the semester work, Colloquium				
7	Prerequisites for awarding credit points Passed module exam				
8	Use of the module at the bachelor degree program Serious Games & Digital Knowledge				
9	Status of the grade for the final grade 2,42%				
10	Module representative – and full-time lecturer Prof. Dr. Daniel Heßler				
11	Other Information none				

Title of the module Concept Art II (3D)					
Code Number	Total workload (h)	ECTS-CRE-DITS	Semester	Frequency	Duration
7 GAME	240 (h)	8	2. Semester	annually	1 semester
1	Courses 1 Seminar	Contact hours (h) 90 (h)	Self-study (h) 150 (h)	planned group size 15 Students	
2	Learning outcomes / Competencies After successfully completing the module, the students have developed, differentiated and sensitized their perception skills. You have discovered and researched new possibilities of expression in the area of concept art / 3D. Their creative thinking was encouraged and they acquired basic creative skills and abilities. The developed drawing skills and technical skills enable and support further professional work. One or more characters are developed as well as a concept for a game world in which the conceptual, narrative and visual qualities of a new game are described.				
3	Contents The focus of teaching is on graphic investigations (analog & digital) on form and function, cause and effect, as well as on the relationships between texture, color, light and shadow. Digital drawing and 3D modeling techniques are predominantly used; Exercises and studies on character design, asset design, game physics and game environments. The focus is on the theoretical and, above all, the practical development of basic knowledge and skills in the area of visualizing characters, game objects and game environments.				
4	Teaching forms Seminar teaching, Group work, Project work				
5	Participation requirements none				
6	Forms of examination Documentation, Presentation of the semester work, Colloquium				
7	Prerequisites for awarding credit points Passed module exam				
8	Use of the module at the bachelor degree program Serious Games & Digital Knowledge				
9	Status of the grade for the final grade 1,61%				
10	Module representative – and full-time lecturer Prof. Dr. Daniel Heßler				
11	Other Information none				

Title of the module Technique III					
Code Number	Total workload (h)	ECTS-CRE-DITS	Semester	Frequency	Duration
8 Game	150 (h)	5	2. Semester	annually	1 semester
1	Courses 2SV 2E	Contact hours (h) 60 (h)	Self-study (h) 90 (h)	planned group size 30 Students	
2	<p>Learning outcomes / Competencies</p> <p>The students learn the basic structure of a computer, including computer architectures and basic concepts of an operating system.</p> <p>Furthermore, the students know the terminology of computer graphics and can use it correctly to describe graphics systems. You know important mathematical concepts, algorithms and data structures in computer graphics and their use in common computer graphics systems</p> <p>Technical and methodological expertise:</p> <ul style="list-style-type: none"> • Computer-friendly representation of information (numbers and characters) • Understanding the structure and application of memory elements (selected latches and flip-flops) • Outlining and evaluating simple implementations of the three central tasks of an operating system (process, memory and file management) • Realization of concurrent applications with processes and threads • Recognize the potential problems of concurrent programs (including race conditions) and select suitable synchronization mechanisms. • To be able to name advanced aspects of computer structures such as multiprocessor systems and to outline their implications for operating system structures using examples 				
3	<p>Contents</p> <ul style="list-style-type: none"> • Number and character representation (positive and negative integers, fixed and floating point representation IEEE 754, ASCII/Unicode) • Memory (RS latch, reference to automaton theory, flip-flops, simple standard switching devices) • Computer architecture (machine types, von Neumann and Harvard, approaches to modernization, current processors) • Introduction to the practical application of Linux (files and directories, input/output redirection, processes) and operating system concepts (architectures) • Processes (management, scheduling) • Communication (pipes, FIFOs, semaphores, shared memory, sockets, RPC) • Synchronization of processes and threads (mutual exclusion, conditional synchronization, rendezvous with semaphores and monitors) • Multiprocessor systems (hardware, scheduling, synchronization) • Visual information processing and its applications, hardware and software of graphic systems • 2D graphics: 2D primitives and basic algorithms, curves, transformations and clipping, raster conversion • 3D graphics: 3D primitives, curves and surfaces, solid modeling, scene graph and transformations, projection, visibility and occlusion, shader programming, lighting and shading, textures, ray tracing 				
4	<p>Teaching forms</p> <p>The teaching methods are specifically designed for the course</p> <ul style="list-style-type: none"> • Lecture in interaction with the students, with board writing and projection, • Solution of practical exercises in individual or team work, • Processing programming tasks on the computer in individual or team work, • Active, self-directed learning through Internet-based tasks, sample solutions and accompanying materials <p>are used.</p>				
5	Participation requirements				

	none
6	Forms of examination Written exam
7	Prerequisites for awarding credit points Passed module exam
8	Use of the module in the BA degree program Serious Gaming & Digital Knowledge
9	Status of the grade for the final grade 1,61%
10	Module representative – and full-time lecturer Prof. Dr. Uwe Schmitz
11	Other Information none

Title of the module Science I					
Code Number	Total workload (h)	ECTS-CRE-DITS	Semester	Frequency	Duration
9 W	180 (h)	6	2. Semester	annually	1 semester
1	Courses 3 Vorlesungen	Contact hours (h) 90 (h)	Self-study (h) 90 (h)	planned group size 30 Students	
2	<p>Learning outcomes / Competencies</p> <p>Media pedagogy I The students understand the theoretical principles of Media pedagogy. You can analyze and assess their applicability in different contexts. Methodologically, you will be able to understand, apply and evaluate media pedagogical processes. You are able to independently select, adopt and use the necessary digital tools.</p> <p>Game Studies I: Introduction After successfully completing the module, students are familiar with:</p> <ul style="list-style-type: none"> • the history of game research including game design studies • the central research questions, methods and terminology • the relevant institutional and personal research and teaching protagonists • the special situation of game studies in Germany <p>Introduction to media studies After successfully completing the module, students are able to:</p> <ul style="list-style-type: none"> • to recognize selected periods of media history or the history of individual media • to design and work on media historical research questions • to contextualize media theoretical and aesthetic connections • develop and implement media analytical questions 				
3	<p>Contents</p> <p>Media pedagogy I (2 SHW) Theoretical aspects: Basics of Media pedagogy: definition and design of media competence, various types of Media pedagogy (active media work, action-oriented Media pedagogy ...), Media pedagogy fields of activity, media didactics, media appropriation, media socialization, concepts of Media pedagogy (e.g. structural Media pedagogy). Practical fields of application: Get to know and evaluate practical examples of Media pedagogy for different age groups. Get to know and try out digital tools. Develop strategies to gain access to digital technology through independent acquisition.</p> <p>Game Studies I: Introduction (2 SHW) The event introduces the relatively young and therefore heterogeneous research field of game studies. Through a beginner-friendly historization of the research direction, the basics, pioneers of game research (e.g. Huizinga or Caillouis) and research and teaching discourses (e.g. narratology and ludology or the connection to game design studies) are conveyed in an accessible manner.</p> <p>Introduction to media studies (2 SHW) The event introduces the basic methods and terminology of media studies. The introduction for students is therefore divided into:</p> <ul style="list-style-type: none"> • Media historiography (students gain insight into the historiography and history of audiovisual media, their forms of production and distribution as well as their dynamics) 				

	<ul style="list-style-type: none"> • Media theory (the focus here is on theories of audiovisual media and the self-understanding of the subject) as well • Media analysis (the focus is on the analytical handling of the dimensions of text, image, sound and audiovisual).
4	Teaching forms Lecture in interaction with the students, Group work, Project work
5	Participation requirements none
6	Forms of examination Part 1, Part 2 and Part 3: each exam, university term paper, short presentation, exercise
7	Prerequisites for awarding credit points 3 passed module sub-examinations
8	Use of the module at the bachelor degree program Serious Games & Digital Knowledge
9	Status of the grade for the final grade 2,42%
10	Module representative – and full-time lecturer Prof. Dr. Jennifer Tiede, Prof. Dr. Marcel Marburger
11	Other Information Schriften zur Medienpädagogik, Kopaed Verlag (jeweils die 4 aktuellsten Ausgaben) Medienpädagogik Praxisblog: https://www.medienpaedagogik-praxis.de/ MERZ Zeitschrift Jörissen / Marotzki: <i>Strukturelle Bildungstheorie und Strukturelle Medienbildung</i> . In: Benjamin Jörissen, Winfried Marotzki (Hrsg.): <i>Medienbildung – Eine Einführung</i> . Verlag Julius Klinkhardt, Bad Heilbrunn 2009 Schorbet.al: <i>Grundbegriffe Medienpädagogik</i> . kopaed, München 2017 Game Studies I: Introduction <ul style="list-style-type: none"> ▪ Gundolf S. Freyermuth: <i>Games. Game Design. Game Studies. Eine Einführung</i>. Bielefeld, 2015. ▪ Benjamin Beil/Thomas Hensel/Andreas Rauscher (Hg.): <i>Game Studies</i>. Heidelberg, 2018. ▪ Frans Mäyrä: <i>An Introduction to Game Studies. Games in Culture</i>. London, 2008. Einführung in die Medienwissenschaft <ul style="list-style-type: none"> ▪ Sven Grampp: <i>Medienwissenschaft</i>. Konstanz, 2016. ▪ Elisabeth Kampmann/Gregor Schwering: <i>Teaching Media. Medientheorie für die Schulpraxis. Grundlagen, Beispiele, Perspektiven</i>. Bielefeld, 2017. ▪ Jens Schröter: <i>Handbuch Medienwissenschaft</i>. Stuttgart, 2014.

Title of the module Key competence II / ABWL					
Code Number	Total workload (h)	ECTS-CRE-DITS	Semester	Frequency	Duration
10 SK GAME	60 (h)	2	2. Semester	annually	1 semester
1	Courses 1 Vorlesung	Contact hours (h) 30 (h)	Self-study (h) 30 (h)	planned group size 30 Students	
2	<p>Learning outcomes / Competencies</p> <p>2.1.Expertise</p> <p>2.1.1.Knowledge</p> <ul style="list-style-type: none"> • Students have a basic understanding of business administration. • You have learned about the development of central management approaches. • You have acquired an overview of the tasks of operational functions as part of the management process and can explain, classify and differentiate between central management terms. • You can describe and explain the essential management process stages for targeted control of the company. • You know how to describe and explain the basic instruments in the management process. • You are able to integrate knowledge from different areas. <p>2.1.2.Skills</p> <ul style="list-style-type: none"> • Students can describe and structure planning, decision-making and control processes in companies with a practical perspective. • You can systematically describe the operational functions and explain interdependencies in a differentiated manner. • You master essential instruments in the individual phases of operational planning, decision-making and control <p>2.2 Personal Competencies</p> <p>2.2.1 Social skills</p> <ul style="list-style-type: none"> • The students develop communication skills that are supported by tasks, case studies and case studies. • The students can present their analyzes in a results- and application-oriented manner that is appropriate for the target group. <p>2.2.2 Independence</p> <ul style="list-style-type: none"> • Students can deal independently with complex work and study contexts and design them in an application-oriented manner. • You can reflect on a company's operational and strategic challenges with reference to key business metrics. • You have the ability to understand the interplay between economic regulations, institutional framework conditions and the strategic profile of a company and to derive your own opinion. • You can work on analytical and argumentative tasks. 				
3	<p>Contents</p> <p>In terms of content, the module focuses on teaching basic knowledge of business administration. Accordingly, the module includes the following content structure:</p> <ul style="list-style-type: none"> • Basic questions of business administration • New institutional economics • Constitutive decisions (location choice, legal forms, connections) • Corporate management (controlling, organization, human resources management) • International aspects of business administration • Operational service provision (production management, marketing) • Accounting & Finance (Ext./Int. Rewe, Investment and Financing) 				

4	Teaching forms Seminar teaching, Group work, Project work
5	Participation requirements none
6	Forms of examination Presentation of the semester work, Colloquium
7	Prerequisites for awarding credit points Passed module exam
8	Use of the module at the bachelor degree program Serious Games & Digital Knowledge
9	Status of the grade for the final grade 2,42%
10	Module representative – and full-time lecturer LfbA Meike Noster / Fabian Dittrich (FB 9)
11	Other Information none

Title of the module Game Design II					
Code Number	Total workload (h)	ECTS-CRE-DITS	Semester	Frequency	Duration
11 GAME	240 (h)	8	3. Semester	annually	1 semester
1	Courses 1 Seminar	Contact hours (h) 90 (h)	Self-study (h) 150 (h)	planned group size 15 Students	
2	Learning outcomes / Competencies The students have acquired advanced concepts and methods for analyzing, developing and evaluating serious games. The focus of the exercises and projects in this module is on narrative techniques/story-telling as well as knowledge transfer and skills development through serious games.				
3	Contents Storytelling, (visual) narratives, dramaturgy; Transferring knowledge and developing skills (action skills, social skills) through serious games; Game-based learning. Close conceptual and content-related integration with Module 14 W (Science II).				
4	Teaching forms Seminar teaching, Group work, Project work				
5	Participation requirements none				
6	Forms of examination Presentation of the semester work , Colloquium				
7	Prerequisites for awarding credit points Passed module exam				
8	Use of the module at the bachelor degree program Serious Games & Digital Knowledge				
9	Status of the grade for the final grade 2,42%				
10	Module representative – and full-time lecturer Prof. Dr. Daniel Heßler				
11	Other Information none				

Title of the module Game Development I					
Code Number	Total workload (h)	ECTS-CRE-DITS	Semester	Frequency	Duration
12 GAME	240 (h)	8	3. Semester	annually	1 semester
1	Courses 2 Seminare	Contact hours (h) 90 (h)	Self-study (h) 150 (h)	planned group size 15 Students	
2	Learning outcomes / Competencies In their first game development module, students learned to apply the basic concepts of game design (Game Design Fundamentals, Game Mechanics), 2D and 3D design and the underlying technologies (Programming Fundamentals, Game Engine Fundamentals). to create an independent, digital game.				
3	Contents Game Development I: Design (4 SHW) + Game Development I: Code (2 SHW)				
4	Teaching forms Seminar teaching, Group work, Project work				
5	Participation requirements none				
6	Forms of examination Presentation of the semester work, Colloquium				
7	Prerequisites for awarding credit points 2 passed module sub-examinations				
8	Use of the module at the bachelor degree program Serious Games & Digital Knowledge				
9	Status of the grade for the final grade 2,42%				
10	Module representative – and full-time lecturer Prof. Dr. Daniel Heßler				
11	Other Information none				

Title of the module Additional competence I / Game Development I (t)					
Code Number	Total workload (h)	ECTS-CRE-DITS	Semester	Frequency	Duration
13 ZK	180 (h)	6	3. Semester	annually	1 semester
1	Courses 1 PS	Contact hours (h) 60 (h)	Self-study (h) 120 (h)	planned group size 20 Students	
2	<p>Learning outcomes / Competencies</p> <p>In this module, students learn the basic concepts of game programming and apply the basic skills of software programming they have already learned in a game programming context.</p> <p>Technical and methodological expertise:</p> <ul style="list-style-type: none"> • Familiarity with the basics of game programming. • Mastering basic programming skills for typical software elements or components of game programming • Skills and abilities to develop and implement high-performance and resource-saving components and elements for game engines, or components for middleware in the game engine environment 				
3	<p>Contents</p> <ul style="list-style-type: none"> • Getting to know typical functionalities of game engines • Core programming (main loop with timer, event handling, resource manager, static and dynamic game data handling) • Simulation (Basic physics engine features, game AI) • Selected multiplayer features • Selected client-server features • Installation and API connection of a professional game engine 				
4	<p>Teaching forms</p> <p>The teaching methods are specifically designed for the course</p> <ul style="list-style-type: none"> • Lecture in interaction with the students, with board writing and projection, • Solution of practical exercises in individual or team work, • Processing programming tasks on the computer in individual or team work, • Active, self-directed learning through Internet-based tasks, sample solutions and accompanying materials <p>are used.</p>				
5	<p>Participation requirements</p> <p>none</p>				
6	<p>Forms of examination</p> <p>Written exam</p>				
7	<p>Prerequisites for awarding credit points</p> <p>Passed module exam</p>				
8	<p>Use of the module</p> <p>at the bachelor degree program Serious Games & Digital Knowledge</p>				
9	<p>Status of the grade for the final grade</p> <p>1,08%</p>				
10	<p>Module representative – and full-time lecturer</p> <p>Prof. Dr. Uwe Schmitz</p>				
11	<p>Other Information</p> <p>none</p>				

Title of the module Science II					
Code Number	Total workload (h)	ECTS-CRE-DITS	Semester	Frequency	Duration
14 W	180 (h)	6	6. Semester	annually	1 semester
1	Courses 2 SV	Contact hours (h) 60 (h)	Self-study (h) 120 (h)	planned group size 30 Students	
2	<p>Learning outcomes / Competencies</p> <p>Media pedagogy II</p> <p>The students know current learning theories and can relate them to (video) games in class. You understand gamification and know the distinction between serious games and learning programs. They know about age-appropriate applications for all age groups and know the specific needs of the different target groups. You apply knowledge about youth media protection in Germany and in an international context in your projects (e.g. in Design 2).</p> <p>Game Studies II: Reading Class</p> <p>After successfully completing the course, the students are familiar with selected key texts from game culture. Through critical reading and discussion, they have gained a greater understanding of the breadth of the field that is based on the cultural phenomenon of play. You gain greater sensitivity and competence for developing and questioning your own research interests and questions.</p>				
3	<p>Contents</p> <p>Media pedagogy II (2 SHW)</p> <p>Current learning theories, gamification in an educational context: theory and practical examples including the discussion about the usefulness of gamification. Difference between gamification and pointification. Developmental psychology basics in connection with media acquisition and media use, special needs of marginalized target groups and accessibility, youth media protection in Germany and in the international context.</p> <p>Game Studies II: Reading Class (2SHW)</p> <p>The focus of the event is the shared reading and guided discussion of various key texts from game culture. Building on the introduction and the basic knowledge imparted from "Game Studies I: Introduction", this familiarization with the reflexive, sometimes contradictory potentials in text form serves to offer students an expansion of their gaming culture horizons.</p>				
4	<p>Teaching forms</p> <p>Seminar teaching, Group work, Project work</p>				
5	<p>Participation requirements</p> <p>Successful completion of the Game Studies I and Media pedagogy I modules</p>				
6	<p>Forms of examination</p> <p>Presentation of the semester work, Colloquium</p>				
7	<p>Prerequisites for awarding credit points</p> <p>2 passed module sub-examinations</p>				
8	<p>Use of the module</p> <p>at the bachelor degree program Serious Games & Digital Knowledge</p>				
9	<p>Status of the grade for the final grade</p> <p>2,42%</p>				
10	<p>Module representative – and full-time lecturer</p> <p>Prof. Dr. Jennifer Tiede</p>				

Other Information

Game Studies II: Reading Class

- Ian Bogost: *How To Do Things With Videogames*. Minneapolis, 2011.
- Tom Bissell: *Extra Lives: Why Video Games Matter*. New York, 2010.
- Jane McGonigal: *Reality is Broken. Why Games Make Us Better and How They Can Change the World*. London, 2011.
- Jesper Juul: *Reinventing Video Games and Their Players*. London, 2012.
- Matthew Thomas Payne/Nina B. Huntemann (Hg.): *How to Play Video Games*. New York, 2019.
- Michael Schulze von Glaßer: *Das virtuelle Schlachtfeld. Videospiele, Militär und Rüstungsindustrie*. Köln, 2014.
- Lindsay Grace (Hg.): *Black Game Studies*. Pittsburgh, 2021.

Celia Pearce: *Emergent Cultures in Multiplayer Games and Virtual Worlds*. London, 2011.

- Andreas Rosenfelder: *Von der schrecklichen Schönheit der Computerspiele*. Köln, 2008.
- Bernard Perron: *The World of Scary Video Games: A Study in Videoludic Horror*. London, 2018.
- Soraya Murray: *On Video Games. The Visual Politics of Race, Gender and Space*. London, 2018
- Steven E. Jones: *The Meaning of Video Games. Gaming and Textual Strategies*. New York/London, 2008.
- Konstantinos Dimopoulos, Maria Kallikaki: *Virtual Cities: An Atlas & Exploration of Video Game Cities*. London, 2020.

KIM und JIM -Studie und andere aktuelle Mediennutzungsstudien

Jugendmedienschutzstaatsvertrag

Geisler, Martin: *Digitale Spiele in der Medienpädagogik: Einstellungen, Erfahrungen und Haltungen von Spieleleitenden*. kopaed, München 2019

Grotlüschen Anke/ Pätzold Henning : *Lerntheorien in der Erwachsenen- und Weiterbildung*. wbv Publikation Bielefeld 2020

Kerres, Michael: *Mediendidaktik Konzeption und Entwicklung digitaler Lernangebote*. De Gruyter, Berlin 2018

Hugger, K.-U. (2008): *Uses-and-Gratification-Approach und Nutzenansatz*. In: Sander, U./Gross, F. von/Hugger, K.-U. (Hrsg.): *Handbuch Medienpädagogik*. Wiesbaden: VS Verlag für Sozialwissenschaften, S. 173–178

Title of the module Key Competency II (Entrepreneurship)					
Code Number	Total workload (h)	ECTS-CRE-DITS	Semester	Frequency	Duration
15 SK GAME	120 (h)	4	3. Semester	annually	1 semester
1	Courses 1 SV	Contact hours (h) 30 (h)	Self-study (h) 90 (h)	planned group size 30 Students	
2	<p>Learning outcomes / Competencies</p> <p>Students learn the ability to work in cross-functional teams</p> <p>The essence of social businesses is understood, you can understand the challenges of startup management and you have acquired ready-to-use knowledge of selected methods and tools.</p> <p>You can develop business models for social businesses and have understood the Lean Startup approach and can apply its most important tools.</p> <p>The students can create a pitch deck to present a social business and have grasped digital marketing in its entirety and can apply it. (Part 2)</p> <p>You know how to use financing options with a focus on crowd financing. (Part 2)</p>				
3	<p>Contents</p> <ol style="list-style-type: none"> 1. Social Entrepreneurship 2. Business Plan & Strategy 3. Lean startups 4. Pitch Deck 5. Digital Marketing (Part 2) 6. Crowd Financing (Part 2) <p>Entrepreneurship (German / English)</p>				
4	<p>Teaching forms</p> <p>Seminar teaching, Group work, Project work</p>				
5	<p>Participation requirements</p> <p>none</p>				
6	<p>Forms of examination</p> <p>Presentation of the semester work, Colloquium</p>				
7	<p>Prerequisites for awarding credit points</p> <p>Passed module exam</p>				
8	<p>Use of the module</p> <p>at the bachelor degree program Serious Games & Digital Knowledge</p>				
9	<p>Status of the grade for the final grade</p> <p>2,42%</p>				
10	<p>Module representative – and full-time lecturer</p> <p>LfBA Meike Noster / Fabian Dietrich FB 9</p>				
11	<p>Other Information</p> <p>none</p>				

Title of the module Game Design III					
Code Number	Total workload (h)	ECTS-CRE-DITS	Semester	Frequency	Duration
16 GAME	270 (h)	9	4. Semester	annually	1 semester
1	Courses 1 Seminar	Contact hours (h) 180	Self-study (h) 90 (h)	planned group size 15 Students	
2	Learning outcomes / Competencies The students have acquired advanced concepts and methods of analyzing, developing and evaluating game mechanics for serious games. The focus of consideration is on game rules, game objectives (learning objectives) as well as game and puzzle mechanics.				
3	Contents Theoretical and practical development of complex concepts and strategies in game design. Development and visualization of game rules and game goals; Balancing. Exercises and projects on game design with a focus on game mechanics: game worlds and game/puzzle mechanics. Conceptual and content-related integration with module 17 GAME (Game Development II-t).				
4	Teaching forms Seminar teaching, Group work, Project work				
5	Participation requirements none				
6	Forms of examination Presentation of the semester work, Colloquium				
7	Prerequisites for awarding credit points Passed module exam				
8	Use of the module at the bachelor degree program Serious Games & Digital Knowledge				
9	Status of the grade for the final grade 2,42%				
10	Module representative – and full-time lecturer Prof. Dr. Daniel Heßler				
11	Other Information none				

Title of the module Game Development III (t)					
Code Number	Total workload (h)	ECTS-CRE-DITS	Semester	Frequency	Duration
17 Game	270 (h)	9	2. Semester	annually	1 semester
1	Courses 1 Seminar, 1TN	Contact hours (h) 90 (h)	Self-study (h) 180 (h)	planned group size 15 Students	
2	<p>Learning outcomes / Competencies</p> <p>This module covers the relevant aspects of artificial intelligence for the development of games and learning platforms. At the same time, application-oriented examples of multimodal user interfaces, augmented and virtual reality are discussed.</p> <p>Technical and methodological expertise:</p> <ul style="list-style-type: none"> • to compare and select the different AI methods for specific tasks. • describe the basic approaches for neural networks. • to develop simple AI applications based on existing libraries and services. • to discuss the possibilities and limitations of artificial intelligence. • Identify the characteristics and differences between augmented, mixed and virtual reality techniques • to describe the importance of human perception in the AR and VR area. • to explain the basic technical features of AR and VR systems. • Explain the different interaction options in AR and VR applications. • carry out selected development processes for AR and VR applications. 				
3	<p>Contents</p> <ul style="list-style-type: none"> • Logic basics: propositional logic, predicate logic, resolution and unification, Horn clauses and rule-based knowledge representation, backtracking • Problem solving: search, uninformed search, informed (heuristic) search, games with opponents, heuristic evaluation functions • Neural networks: The perceptron, back-propagation networks, Hopfield networks • Data Mining and Machine Learning: Classification, Clustering, Support Vector Machines • Development of AI applications: approach, libraries and services, training of neural networks • Selected applications of artificial intelligence: expert systems, chess and Go, Watson, character recognition, facial recognition • Areas of application and application examples of AR/VR • Perception aspects in AR/VR • AR/VR output devices • Tracking and interactions in virtual worlds • AR/VR development aspects 				
4	<p>Teaching forms</p> <p>The teaching methods are specifically designed for the course</p> <ul style="list-style-type: none"> • Lecture in interaction with the students, with board writing and projection, • Solution of practical exercises in individual or team work, • Processing programming tasks on the computer in individual or team work, • Active, self-directed learning through Internet-based tasks, sample solutions and accompanying materials <p>are used.</p>				
5	<p>Participation requirements</p> <p>Passed module exam „Games Development II-t“</p>				
6	<p>Forms of examination</p> <p>Written exam, Presentation of the semester work, Colloquium</p>				
7	<p>Prerequisites for awarding credit points</p>				

	Passed module exam
8	Use of the module at the bachelor degree program Serious Games & Digital Knowledge
9	Status of the grade for the final grade 2,42%
10	Module representative – and full-time lecturer Prof. Dr. Uwe Schmitz (FB 4) / Prof. Daniel Heßler
11	Other Information none

Title of the module Additional competence II / (Game Development II-t)					
Code Number	Total workload (h)	ECTS-CRE-DITS	Semester	Frequency	Duration
18 ZK	180 (h)	6	4. Semester	annually	1 semester
1	Courses 1 Projekt Seminar	Contact hours (h) 60 (h)	Self-study (h) 120 (h)	planned group size 20 Students	
2	<p>Learning outcomes / Competencies</p> <p>The focus of this module is the safe use of game engines and their programming using software development kits. In addition to evaluating game engines, the module also covers the creation or adaptation of your own engines</p> <p>Technical and methodological expertise:</p> <ul style="list-style-type: none"> • to name the components of a game engine and understand how they fit together. • List common game engines, remember their concepts and use technical terms confidently. • to analyze and evaluate a game engine with regard to its suitability for implementing a game design. • to understand the tools and editors of a game engine, to understand workflows and to carry them out yourself if necessary. 				
3	<p>Contents</p> <ul style="list-style-type: none"> • Definition and components of a game engine • Common game engines in detail: Unreal Engine, Unity, Godot, Ren'Py • Development processes: setting up a project, importing and using assets, scripting and events • Functional development: User input and control, graphical user interface, animations and sound, terrain and tilemaps, navigation and wayfinding, programming and using shaders • Advanced systems and concepts: loading and saving, network and multiplayer, data-oriented design 				
4	<p>Teaching forms</p> <p>The teaching methods are specifically designed for the course</p> <ul style="list-style-type: none"> • Lecture in interaction with the students, with board writing and projection, • Solution of practical exercises in individual or team work, • Processing programming tasks on the computer in individual or team work, • Active, self-directed learning through Internet-based tasks, sample solutions and accompanying materials <p>are used.</p>				
5	<p>Participation requirements</p> <p>Passed module exam „Games Development I-t“</p>				
6	<p>Forms of examination</p> <p>Written exam, Presentation of the semester work, Colloquium</p>				
7	<p>Prerequisites for awarding credit points</p> <p>Passed module exam</p>				
8	<p>Use of the module</p>				

	in the BA degree program Serious Gaming & Digital Knowledge
9	Status of the grade for the final grade 1,61%
10	Module representative – and full-time lecturer Prof. Dr. Uwe Schmitz (FB 4) / Prof. Daniel Heßler
11	Other Information none

Title of the module SK III / Project Management & Media and Copyright Law					
Code Number	Total workload (h)	ECTS-CRE-DITS	Semester	Frequency	Duration
19 SK GAME	180 (h)	6	4. Semester	annually	1 semester
1	Courses 2 SV	Contact hours (h) 60 (h)	Self-study (h) 120 (h)	planned group size 30 Students	
2	<p>Learning outcomes / Competencies</p> <p>a Project management</p> <p>2.1 Expertise</p> <p>2.1.1 Knowledge</p> <p>The students can explain the characteristics of a project (uniqueness, goal, time-limited form of organization, associated with risks, etc.) and can differentiate projects from recurring and duration-based tasks. You can describe the essential instruments and methods of project management.</p> <p>2.1.2 Skills</p> <p>The students can describe a project task (project charter).</p> <p>The students are able to identify the stakeholders of a project and record their influence on the project.</p> <p>The students are able to determine the success factors of a project.</p> <p>The students can derive a structured project plan from the project task, with the individual activities that need to be completed (work breakdown structure, WBS / Work breakdown structure, WBS) and can assign the required resources to the activities.</p> <p>The students can create a network plan from the project structure plan, the logical order of the activities, determine the critical path and determine the project duration. You can explain the importance of the critical path.</p> <p>The students are able to derive a cost plan for the project from the project plan, the network plan and the planned use of resources.</p> <p>The students are able to derive checklists for project tracking from the project plan and the network plan and to apply them after the project has started.</p> <p>The students are able to set up a project group and define the roles and responsibilities of the project group members and other stakeholders.</p> <p>The students can identify and qualitatively evaluate the main risks of a project.</p> <p>2.2 Personal Competencies</p> <p>2.2.1 Social Competencies</p> <p>The students develop team competencies, which are supported by team tasks etc., Students can lead and coordinate teams in a results-oriented manner. You can present team results in a complex and demanding environment.</p> <p>2.2.2 Independence</p> <p>Students can deal with complex work or study contexts independently and structure them and make them sustainable. You can edit independent projects.</p> <p>b) Media and copyright law</p> <p>The students learned what rights they are entitled to as creatives and how they can enforce them. You have knowledge of copyright protection, usage rights, (contractual and legal) granting of rights and remuneration claims. At the same time, the students were able to recognize in which situations a rights clearance is necessary in order not to infringe the rights of third parties (such as other creative people,</p>				

	people depicted, brands or designs). Basic knowledge of copyright and media law is an essential part of successful work with customers and contractual partners.
3	<p>Contents</p> <p>Project Management 2 SHW, Media & Copyright 2 SHW (German / English)</p> <p>a) Project management</p> <p>The project management course takes ISO project management standards into account; DIN, GPM, IPMA, PMI, some of which are also used by students. The following content is also covered:</p> <p>Basics of projects Project management and phases of project management Stakeholder analysis Scope management Time management Cost and resource management Communication management Risk management</p> <p>b) Media and copyright law</p> <p>Protection requirements, duration, usage and processing rights, licenses, barrier regulations, liability. Right to your own image and personal rights. Further basic features of media law: legal regulations on the Internet, protection of brands/designs, artists' social insurance and artists' social contributions, VG Bild/Kunst, fee tables (e.g. MFM, VTV).</p>
4	<p>Teaching forms</p> <p>Seminar teaching, Group work, Project work</p>
5	<p>Participation requirements</p> <p>none</p>
6	<p>Forms of examination</p> <p>Presentation of the semester work, Colloquium</p>
7	<p>Prerequisites for awarding credit points</p> <p>Passed module exam</p>
8	<p>Use of the module</p> <p>at the bachelor degree program Serious Games & Digital Knowledge</p>
9	<p>Status of the grade for the final grade</p> <p>2,42%</p>
10	<p>Module representative – and full-time lecturer</p> <p>LfBA Meike Noster / Fabian Dietrich FB 9</p>
11	<p>Other Information</p> <p>none</p>

Title of the module Game Design IV					
Code Number	Total workload (h)	ECTS-CRE-DITS	Semester	Frequency	Duration
20 GAME	270 (h)	9	5. Semester	annually	1 semester
1	Courses 1 Seminar	Contact hours (h) 90 (h)	Self-study (h) 180 (h)	planned group size 15 Students	
2	Learning outcomes / Competencies Students have acquired advanced concepts and methods of developing characters in serious games. The focus of consideration is game art, character design and animation: investigation and visualization of formal, anatomical and aesthetic properties of player and non-player characters in the form of analog and digital concept sketches, mood boards and finally the transfer into 3D models or sprites including texturing, rigging and animation.				
3	Contents Game Art, Character Design, Animation Techniques & Motion Capturing ; Advanced design and animation techniques using tools such aszBrush, Blender, Cinema 4D and others.				
4	Teaching forms Seminar teaching, Group work, Project work				
5	Participation requirements none				
6	Forms of examination Presentation, Presentation of the semester work , University term paper, Colloquium				
7	Prerequisites for awarding credit points Passed module exam				
8	Use of the module at the bachelor degree program Serious Games & Digital Knowledge				
9	Status of the grade for the final grade 2,42%				
10	Module representative – and full-time lecturer Prof. Dr. Daniel Heßler				
11	Other Information none				

Title of the module Game Development V (t)					
Code Number	Total workload (h)	ECTS-CRE-DITS	Semester	Frequency	Duration
21 Game	270 (h)	9	5. Semester	annually	1 semester
1	Courses 1 S (4 SHW), 1 E (2 SHW)	Contact hours (h) 90 (h)	Self-study (h) 180 (h)	planned group size 15 Students	
2	Learning outcomes / Competencies Course participants can analyze existing online games and design their communication mechanisms. These include the ability to formulate and represent technical problems that need to be solved by various categories of online games, as well as the ability to reproduce architectural components of various online games. Participants will have knowledge of the communication protocols used in online games and the impact of network service characteristics, particularly latency, jitter and loss, on quality of service from a user perspective. The participant also knows the principles of possible design decisions of multiplayer communication systems and can identify suitable communication mechanisms and the dimensioning of their parameters for a given set of requirements.				
3	Contents In this practice-oriented seminar, students form teams (2-max 5 students) and develop a “vertical section of a mobile game”. A vertical section is a portion of a game that serves as a proof of concept for investors or other gaming industry stakeholders looking to fund games. Students begin the design process by forming stakeholders and deconstructing a series of mobile games using a reverse engineering approach with the goal of understanding the various factors that contribute to a holistic gaming experience. The aim of teamwork is to enable critical discussions and creative reflections. After a few creativity workshops in which students focus on the specific requirements of mobile rich experience design, such as: For example, the haptics supported by a touchscreen, students form game design teams (2-5 students), create low-fidelity prototypes and organize a series of game tests to evaluate and critically discuss game mechanics, dynamics or aesthetics. After an analysis phase, students then begin working on their final seminar project, a “Vertical Slice of a Game,” using a state-of-the-art game engine. Through an iterative design process, students will critically discuss and reflect on design methods and design options to learn how to apply a player-centered approach and conduct an empirical study for games.				
4	Teaching forms The teaching methods are specifically designed for the course <ul style="list-style-type: none"> • Lecture in interaction with the students, with board writing and projection, • Solution of practical exercises in individual or team work, • Processing programming tasks on the computer in individual or team work, • Active, self-directed learning through Internet-based tasks, sample solutions and accompanying materials are used.				
5	Participation requirements none				
6	Forms of examination Written exam, Presentation of the semester work, Colloquium				
7	Prerequisites for awarding credit points Passed module exam				
8	Use of the module at the bachelor degree program Serious Games & Digital Knowledge				
9	Status of the grade for the final grade 2,42%				
10	Module representative – and full-time lecturer Prof. Dr. Uwe Schmitz				

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Other Information

none

Title of the module IDP I					
Code Number	Total workload (h)	ECTS-CRE-DITS	Semester	Frequency	Duration
22 IDP	180 (h)	6	5. Semester	annually	1 semester
1	Courses 1 PS	Contact hours (h) 60 (h)	Self-study (h) 120 (h)	planned group size 20 Students	
2	<p>Learning outcomes / Competencies</p> <p>As part of working in integrative design projects, students from all degree programs jointly acquire knowledge of creative forms of statement and expression. In the project work, the students combined the expertise they brought with it with that of the disciplines of other courses in the department. Through the process of creating individual individual works or a larger overall design project produced in a group, competencies for intermedia discussion and reflection are acquired.</p> <p>The students learn team-oriented work and an understanding of the laws and connections between their own and “non-subject” disciplines.</p>				
3	<p>Contents</p> <p>The content-related discourse and the creative expression are at the center of working on freely selectable or predetermined topics with social, artistic or philosophical relevance.</p> <p>Conception and design, design and, if necessary, execution of, for example: serious games, exhibition, book, magazine, event, scenographic intervention, installation, audio-visual project, video clip, short film, sound concept.</p> <p>Design project for the implementation of experimental or application-related visual or audiovisual works. The content discourse and creative expression are at the center of working on freely selectable or predetermined topics with social or artistic relevance.</p> <p>The students work in a team within their course discipline together with fellow students from other courses on a joint design project or present and discuss their individual projects in the seminar group.</p>				
4	<p>Teaching forms</p> <p>Seminar teaching, Group work, Project work</p>				
5	<p>Participation requirements</p> <p>none</p>				
6	<p>Forms of examination</p> <p>Presentation of the semester work, Colloquium</p>				
7	<p>Prerequisites for awarding credit points</p> <p>Passed module exam</p>				
8	<p>Use of the module</p> <p>at the bachelor degree program Serious Games & Digital Knowledge</p>				
9	<p>Status of the grade for the final grade</p> <p>2,42%</p>				
10	<p>Module representative – and full-time lecturer</p> <p>Prof. Roger Walk</p>				
11	<p>Other Information</p> <p>none</p>				

Title of the module Science III					
Code Number	Total workload (h)	ECTS-CRE-DITS	Semester	Frequency	Duration
23 W	180 (h)	6	6. Semester	annually	1 semester
1	Courses 2 SV	Contact hours (h) 60 (h)	Self-study (h) 120 (h)	planned group size 30 Students	
2	<p>Learning outcomes / Competencies</p> <p>a) Media pedagogy III The students know theoretical concepts of digital communication and interaction. You can distinguish between, guide and analyze cooperation and collaboration processes. You are familiar with the legal regulations regarding digital communication, particularly with regard to the protection of minors in the media.</p> <p>b) Game Studies III: Discourses After successfully completing the event, the students further deepened their specialist knowledge in the field of game studies; with the corresponding prior knowledge from Game Studies I and II, have expanded their knowledge into current, recent and classic game science discourses. They are able to name and apply different methods of analysis in connection with their research tradition and to independently develop and carry out their own approaches and research concepts for understanding games and games using these strategies, instruments and methods.</p>				
3	<p>Contents</p> <p>a) Media pedagogy III (2 SHW) Concepts of digital communication and interaction (technical, pedagogical and psychological aspects). Special features of online communication and collaboration including corresponding tools and possible applications. Legal regulations surrounding interaction and communication in the digital space.</p> <p>b) Game Studies III (2 SHW) Discourses delves into individual discourses in game science and research in the introduction to Game Studies I and the Reading Class in Game Studies II. This includes selected individual topics that allow, promote and solidify an even deeper understanding of the students. These include, for example, overlapping areas with neighboring disciplines such as political science, history or musicology.</p>				
4	<p>Teaching forms Seminar teaching, Group work, Project work</p>				
5	<p>Participation requirements Game Studies III: Discourses; builds consecutively on Game Studies I and II. Media pedagogy III: Builds consecutively on Media pedagogy I and II.</p>				
6	<p>Forms of examination Presentation of the semester work, Colloquium</p>				
7	<p>Prerequisites for awarding credit points 2 passed module sub-examinations</p>				
8	<p>Use of the module at the bachelor degree program Serious Games & Digital Knowledge</p>				
9	<p>Status of the grade for the final grade 2,42%</p>				
10	<p>Module representative – and full-time lecturer Prof. Dr. Jennifer Tiede</p>				

11

Other Information

Kutscher, Nadja et. al. (Hrsg.): Handbuch Soziale Arbeit und Digitalisierung, Beltz Juventa 2020

Bauer, Johannes / Müßle, Tim: Psychologie der digitalen Kommunikation, utzverlag GmbH, München 2020

Jugendmedienschutzstaatsvertrag, Telekommunikation- Telemedien-Datenschutz-Gesetz (TTDSG)

Geschke, D./Lorenz, J./Holtz, P. (2019): The Triple-Filter Bubble. Using Agent-Based Modelling to Test a Meta-Theoretical Framework for the Emergence of Filter Bubbles and Echo Chambers. In: British Journal of Social Psychology 58, S. 129–149

▪ Tamara Bodden/Marvin Madeheim/Annegret Montag (Hg.): *Loading...Game Studies Interdisziplinär*. Paderborn, 2021.

▪ Eugen Pfister/Tobias Winnerling: *Digitale Spiele und Geschichte. Ein kurzer Leitfaden für Student*innen, Forscher*innen und Geschichtsinteressierte*. Glückstadt, 2020.

▪ Emir Bektic/Daniela Bruns/Sonja Gabriel u.a. (Hg.): *Mixed Reality and Games. Theoretical and Practical Approaches in Game Studies and Education*. Bielefeld, 2020.

Title of the module Game Design V					
Code Number	Total workload (h)	ECTS-CRE-DITS	Semester	Frequency	Duration
24 GAME	270 (h)	9	6. Semester	annually	1 semester
1	Courses 1 Seminar	Contact hours (h) 90 (h)	Self-study (h) 180 (h)	planned group size 15 Students	
2	Learning outcomes / Competencies The students have acquired advanced concepts and methods of developing assets and items in serious games. The focus of consideration is game art and world design (environments); Investigation and visualization of formal, aesthetic and physical properties of game world(s) and game objects in the form of analog and digital concept sketches, mood boards and finally the transfer into 3D models (or sprites) including texturing and, if necessary, rigging and animation.				
3	Contents Game Art, World Design & Game Environments, Assets & Items; Advanced design and animation techniques with tools such aszBrush, Blender, Cinema 4D, etc. Conceptual and content-related integration with the modules 25 GAME (Game Development IV / Game Project) and 27 W (Science IV).				
4	Teaching forms Seminar teaching, Group work, Project work				
5	Participation requirements none				
6	Forms of examination Presentation, Presentation of the semester work , University term paper, Colloquium				
7	Prerequisites for awarding credit points Passed module exam				
8	Use of the module at the bachelor degree program Serious Games & Digital Knowledge				
9	Status of the grade for the final grade 2,42%				
10	Module representative – and full-time lecturer Prof. Dr. Daniel Heßler				
11	Other Information none				

Title of the module Game Projekt					
Code Number	Total workload (h)	ECTS-CRE-DITS	Semester	Frequency	Duration
25 GAME	270 (h)	9	6. Semester	annually	1 semester
1	Courses 1 S, 1E	Contact hours (h) 90 (h)	Self-study (h) 180 (h)	planned group size 15 Students	
2	Learning outcomes / Competencies Qualification of students in continuation of the learning and qualification goals of the Game Design I–V and Game Development I–III modules. Methodical, conceptual, design and technical ability to realize complex and extensive development projects in the area of game design / serious games.				
3	Contents Extensive and complex serious games implementation project in group work (groups of 2 or 3) with strong integration with the modules 24 Game (Game Design V) and 27 W (Science VI).				
4	Teaching forms Seminar teaching, Group work, Project work				
5	Participation requirements none				
6	Forms of examination Presentation of the semester work, Colloquium				
7	Prerequisites for awarding credit points 2 passed module sub-examinations				
8	Use of the module at the bachelor degree program Serious Games & Digital Knowledge				
9	Status of the grade for the final grade 2,42%				
10	Module representative – and full-time lecturer Prof. Dr. Daniel Heßler				
11	Other Information none				

Title of the module IDP II					
Code Number	Total workload (h)	ECTS-CRE-DITS	Semester	Frequency	Duration
26 IDP	180 (h)	6	6. Semester	annually	1 semester
1	Courses 1 PS	Contact hours (h) 60 (h)	Self-study (h) 120 (h)	planned group size 20 Students	
2	<p>Learning outcomes / Competencies</p> <p>As part of working in integrative design projects, students from all degree programs jointly acquire knowledge of creative forms of statement and expression. In the project work, the students combined the expertise they brought with it with that of the disciplines of other courses in the department. Through the process of creating individual individual works or a larger overall design project produced in a group, competencies for intermedia discussion and reflection are acquired.</p> <p>The students learn team-oriented work and an understanding of the laws and connections between their own and “non-subject” disciplines.</p>				
3	<p>Contents</p> <p>The content-related discourse and the creative expression are at the center of working on freely selectable or predetermined topics with social, artistic or philosophical relevance.</p> <p>Conception and design, design and, if necessary, execution of, for example: serious games, exhibition, book, magazine, event, scenographic intervention, installation, audio-visual project, video clip, short film, sound concept.</p> <p>Design project for the implementation of experimental or application-related visual or audiovisual works. The content discourse and creative expression are at the center of working on freely selectable or predetermined topics with social or artistic relevance.</p> <p>The students work in a team within their course discipline together with fellow students from other courses on a joint design project or present and discuss their individual projects in the seminar group.</p>				
4	<p>Teaching forms</p> <p>Seminar teaching, Group work, Project work</p>				
5	<p>Participation requirements</p> <p>none</p>				
6	<p>Forms of examination</p> <p>Presentation of the semester work, Colloquium</p>				
7	<p>Prerequisites for awarding credit points</p> <p>Passed module exam</p>				
8	<p>Use of the module</p> <p>at the bachelor degree program Serious Games & Digital Knowledge</p>				
9	<p>Status of the grade for the final grade</p> <p>2,42%</p>				
10	<p>Module representative – and full-time lecturer</p> <p>Prof. Dr. Uwe Schmitz, Prof. Roger Walk</p>				
11	<p>Other Information</p> <p>none</p>				

Title of the module Science IV					
Code Number	Total workload (h)	ECTS-CRE-DITS	Semester	Frequency	Duration
27 W	180 (h)	6	6. Semester	annually	1 semester
1	Courses 2 SV	Contact hours (h) 60 (h)	Self-study (h) 120 (h)	planned group size 30 Students	
2	<p>Learning outcomes / Competencies</p> <p>Media Pedagogy IV (2 SHW) The students know ethical aspects of the digital world and can incorporate these into their professional actions. After successfully completing the module, you will be aware of the implications of algorithmic decisions. They know what to pay attention to when designing inclusive media content. They have developed an attitude towards their social responsibility in future work contexts.</p> <p>Game Studies IV: Game Culture (2 SHW) After successfully passing, the students are able to: to understand and classify the history and function of early/classic games journalism to identify and discuss the early typical game discourses in the popular press (games as drivers of violence, games as addictive, educational software). Recognize the dynamic interplay between traditional and progressive game reporting To study and discuss protagonists of progressive games reporting and their topics in more depth</p>				
3	<p>Contents</p> <p>Media pedagogy IV (2 SHW) Ethical aspects of digital worlds, among other things, in relation to: digital artifacts, automated decision-making processes, design, dark patterns, living environments of different target groups. Digital architecture and the associated possibilities for inclusion and exclusion as well as discrimination. Social aspects of digitalization.</p> <p>Game Studies IV (2 SHW) The medium of digital games has developed enormously over the last 40 years, both technically and thematically. The games trade press has been a constant companion of this development since the beginning of the 1980s, which is also experiencing turbulent times and rapid change. Games journalism developed from a service and product-oriented self-image to elements of reporting that was sometimes culturally critical. Especially in the last ten years, formats have developed that repeatedly bring games journalism and games research together. Particular attention should be paid to the style of New Game Journalism and the form of presentation of video game essays and podcasts, which will need to be subjected to a more in-depth analysis.</p>				
4	<p>Teaching forms Seminar teaching, Group work, Project work</p>				
5	<p>Participation requirements Successful completion of the Game Studies I-III and Media Education I-III modules</p>				
6	<p>Forms of examination Presentation of the semester work, Colloquium</p>				
7	<p>Prerequisites for awarding credit points 2 passed module sub-examinations</p>				
8	<p>Use of the module at the bachelor degree program Serious Games & Digital Knowledge</p>				
9	<p>Status of the grade for the final grade</p>				

	2,42%
10	<p>Module representative – and full-time lecturer Prof. Dr. Jennifer Tiede</p>
11	<p>Other Information</p> <p>Beranek, Angelika: Soziale Arbeit im Digitalzeitalter, Beltz Juventa, Weinheim Basel 2020</p> <p>Schicha, Christian: Medienethik: Grundlagen- Anwendungen-Ressourcen, utb., Stuttgart 2020</p> <p>Grimm, Petra/ Zöllner Oliver (Hrsg.): Digitalisierung und Demokratie: Ethische Perspektiven (Medienethik), Franz Steiner Verlag, Stuttgart 2020</p> <p>Zweig, Katharina: Ein Algorithmus hat kein Taktgefühl: Wo künstliche Intelligenz sich irrt, warum uns das betrifft und was wir dagegen tun können, HEYNE, München 2019</p> <ul style="list-style-type: none"> ▪ Inderst, Rudolf: <i>Spannungsfeld Spielejournalismus: Von Testern und Träumern</i>. S. 173 – 185. In: Jochen Koubeck / Michael Mosel / Stefan Werning (Hg.): <i>Spielkulturen: Funktionen und Bedeutungen des Phänomens Spiel in der Gegenwartskultur und im Alltagsdiskurs</i>. Glückstadt, 2013. ▪ Inderst, Rudolf: <i>“Here Comes a New Challenger”</i>. <i>Will Video Game Essays be the New Champion of Game Criticism?</i> S.257-281. In: Benjamin Beil/ Gundolf S. Freyermuth/ Hanns Christian Schmidt (Hg.): <i>Paratextualizing Games. Investigations on the Paraphernalia and Peripheries of Play</i>. Bielefeld, 2021.

Title of the module Bachelor project supervision					
Code Number	Total workload (h)	ECTS-CRE-DITS	Semester	Frequency	Duration
28 BA	360 (h)	12	7. Semester	jedes Semester	1 semester
1	Courses none	Contact hours (h) 0 SHW	Self-study (h) 360 (h)	planned group size 15 Students	
2	<p>Learning outcomes / Competencies</p> <p>Final supervision: Ability to responsibly carry out (lead/participate) an exemplary project in the area of the course content. Strengthening the students' moderation, organizational and management skills. Evidence of leadership and teamwork skills. Demonstration of professional project know-how. Independent preparation of a paper on the scientific and conceptual basis of the project and the justification of the solution consequences, including documentation of the project basis; professional project presentation. Acquisition of theoretical knowledge, practice-relevant methods and application-related techniques in project planning, project development and organization.</p> <p>By attending at least 12 design lecture series, students have broadened their knowledge of outstanding recent design productions as well as current design topics and relevant discourses beyond their own professional specialization and can thus participate in the critical discussion of global design issues.</p>				
3	<p>Contents</p> <p>Final supervision: Introduction to survey and analysis methods and techniques. Research, testing and evaluation procedures. Organizational strategies, procedures and techniques in the application context of communication and design. Programmatic project communication. Project and design practice: production, design, organization, moderation. Offers for supervision by the supervising lecturers. Discussion of conceptual, dramaturgical, production-oriented and technical questions as part of the BA project. Individual corrections take place in the context of the final thesis - defined according to specific design aspects, e.g.: theory & concept, aesthetics & methods, techniques, tools and technologies.</p> <p>Selected guest lectures and contributions from the national and international cultural sectors, each of which communicates exemplary important topics and questions relating to the state and development of design.</p>				
4	<p>Teaching forms</p> <p>Seminar teaching, Group work, Project work</p>				
5	<p>Participation requirements</p> <p>none</p>				
6	<p>Forms of examination</p> <p>Presentation of the semester work, Colloquium</p>				
7	<p>Prerequisites for awarding credit points</p> <p>Passed module exam</p>				
8	<p>Use of the module</p> <p>at the bachelor degree program Serious Games & Digital Knowledge</p>				
9	<p>Status of the grade for the final grade</p>				

	[siehe Modul 28]
10	Module representative – and full-time lecturer All teaching staff of the degree program
11	Other Information none

Title of the module Bachelor Thesis					
Code Number	Total workload (h)	ECTS-CRE-DITS	Semester	Frequency	Duration
29 BA	360 (h)	12	7. Semester	jedes Semester	1 semester
1	Courses none	Contact hours (h) 0 SHW	Self-study (h) 360 (h)	planned group size	
2	<p>Learning outcomes / Competencies</p> <p>The students are able to independently and responsibly conceive and implement a complex and extensive design project in all media orientations and dialects. A project from one or more of the relevant professional fields of serious games and digital knowledge should be realized.</p> <p>Independent preparation of a thesis on the scientific and conceptual basis of the project and the justification of the solution approaches, including documentation of the project basis: project development, project organization (survey, test and evaluation results). Presentation of the project program and project communication. Presentation of scientific research. Project presentation.</p>				
3	<p>Contents</p> <p>Supervision of the bachelor's thesis: supervision by the supervisor; Discussion of conceptual, dramaturgical, production-related and technical questions as part of the bachelor's project as well as the thesis and the colloquium. Presentation of the bachelor's project and the thesis as part of the final colloquium. The events offered (seminars/individual corrections) are based on the specific Bachelor projects in which the candidates want to implement this final module.</p>				
4	<p>Teaching forms</p> <p>Project monitoring in small working groups, Project work</p>				
5	<p>Participation requirements</p> <p>At least 174 LP must be present</p>				
6	<p>Forms of examination</p> <p>Bachelor Colloquium</p>				
7	<p>Prerequisites for awarding credit points</p> <p>passed bachelor's examination</p>				
8	<p>Use of the module</p> <p>at the bachelor degree program Serious Games & Digital Knowledge</p>				
9	<p>Status of the grade for the final grade</p> <p>Project: 30%</p> <p>Thesis: 15%</p> <p>Colloquium: 5%</p>				
10	<p>Module representative – and full-time lecturer</p> <p>All teaching staff of the degree program</p>				
11	<p>Other Information</p> <p>none</p>				

Title of the module SK IV Starting a business/management projects					
Code Number	Total workload (h)	ECTS-CRE-DITS	Semester	Frequency	Duration
30 – SK G	180 (h)	6	7. Semester	annually	1 semester
1	Courses 1 PS	Contact hours (h) 30 (h)	Self-study (h) 150 (h)	planned group size 20 Students	
2	<p>Learning outcomes / Competencies</p> <p>1 Expertise</p> <p>1.1.1. To know</p> <p>The students can test and implement the knowledge they have learned so far during their studies in an integrative manner using a self-selected example of an innovative company start-up. Students obtain additional necessary information through independent research, information and learning processes alone and in teams, supported by advice from internal experts as well as tutor and coach discussions to reflect on their actions.</p> <p>1.1.2. Skills</p> <p>The students have acquired an integrated understanding and broad awareness of problems in relation to essential business management contexts for their future careers. You develop new solutions and evaluate them with regard to different business functional areas. The students are able to successfully apply the linked business knowledge to complex and changing operational problems. You understand how to develop a coordinated overall corporate plan, even in complex decision-making situations. With a practical perspective, students can make business decision-making processes in a well-founded manner and present them in an argumentative manner.</p> <p>1.2 Personal Competencies</p> <p>1.2.1 Social skills</p> <p>The students can work effectively and efficiently even in heterogeneously composed groups. You learn to deal with problems in a team proactively. Tasks in the team guide students based on their individual competencies, influence the professional development of others in a goal-oriented manner and take on responsibility in the team. The students apply suitable social competencies in order to organize and control work in the project in an appropriate manner, including on a relationship level.</p> <p>1.2.2 Independence</p> <p>The students master efficient working techniques and systematically reflect on their effectiveness for the desired project result. You will master efficient work techniques in order to be able to control, organize and successfully complete business projects - even under time pressure.</p>				
3	<p>Contents</p> <p>Applied project work (team processes/time management):</p> <p>Team-based conception of an innovative but realistic business start-up idea per group and subsequent creation of a business plan of approx. 20 - 30 pages within a specified time frame (max. 9 weeks).</p> <p>Business plan explanation by applying business knowledge in the following areas: annual financial statements, marketing, human resource management.</p> <p>Documentation and reflection of the internal and external communication process of project work through agendas and protocols in tutor and coach discussions.</p> <p>Public presentation of the business idea and central components of the business plan as part of a presentation event.</p> <p>Starting a business / management projects (German / English)</p>				
4	<p>Teaching forms</p> <p>Coaching of project-related team processes, additional advice from specialist experts, support of team development from tutors, organizational processing via the ILIAS learning platform.</p>				
5	<p>Participation requirements</p>				

	none
6	Forms of examination Presentation of the semester work, Colloquium
7	Prerequisites for awarding credit points Passed module exam
8	Use of the module at the bachelor degree program Serious Games & Digital Knowledge
9	Status of the grade for the final grade 2,42%
10	Module representative – and full-time lecturer LfBA Meike Noster oder Fabian Dietrich (FB 9)
11	Other Information none