Faculty of Cultural Studies

Module Catalog
Digital Games

Bachelor of Arts (B.A.)

Technology
Arts Sciences
TH Köln

Content

Module Catalog | Digital Games, B.A.

1 Program Description

The Bachelor of Arts in Digital Games is a full-time program that lasts seven semesters and is divided into three specialization tracks: Game Arts, Game Design, and Game Programming. During the first two semesters, students receive general training in all three areas. From the third semester onwards, each student focuses on the specialization of their choice. Alongside practical training and project-based modules, students acquire the theoretical foundation necessary for the critical examination of digital games, and engage with the opportunities, limitations, and ethical implications of artificial intelligence in game development and digital media production.

2 Graduate Profile

Graduates of the BA Digital Games should have acquired artistic and academic, methodological, historical, and technical knowledge and skills for the conception and planning, development and production of digital games and other non-linear interactive audiovisual media. This involves both the acquisition of general “game literacy” – which is indispensable for interdisciplinary collaboration in the games industry – and specialization in one of the practice fields: “Game Arts,” “Game Design,” or “Game Programming.” The above-mentioned general game literacy includes: knowledge and skills in game arts, game design, game programming, sound design, project management, economics and entrepreneurship, game studies, player research, game analysis, as well as a basic understanding of the role of artificial intelligence in game development, including AI-assisted creative workflows, procedural content generation, and intelligent game systems.

At the end of their studies, graduates are generalists within their specialization – Game Arts, Game Design, or Game Programming – with a solid understanding of the other departments. They are furthermore capable of interdisciplinary collaboration, self-learning, and have acquired a range of necessary soft skills in areas such as communication, presentation, and time management. While trained as generalists, students may choose to develop a deeper focus in a specific area – such as 3D animation in Game Arts, narrative design in Game Design, or engine programming in Game Programming – often explored through collaborative projects (in semesters 1, 2, 3, 4, and 6) or a self-initiated project (in semester 5). They are also able to critically and creatively engage with emerging technologies such as artificial intelligence, including the reflective use of AI-based tools in artistic production, design processes, and programming workflows.

In addition, graduates should have gained theoretical and historical perspectives as well as artistic and ethical orientations. They are familiarized with current academic questions on the production, use, and impact of non-linear audio visions, and are able to analyze games as a form of culture in their historical, cultural, societal, and economic contexts. All in all, they are able to participate in the interdisciplinary discourse on games, their players, and the surrounding cultures. Thus, graduates should have gained a broad store of reference knowledge as well as analytical and critical thinking skills useful for game development. Graduates are also able to critically judge the cultural and social effects emanating from their own work. Their ethical competencies encompass an engaged attitude towards one’s own artistic-academic actions. This includes the ability to reflect on the opportunities, limitations, and ethical implications of artificial intelligence in digital media production and interactive entertainment. Last but not least, graduates are prepared for work in international contexts and intercultural teams.

Graduates should be employable within the traditional global games industry, including studios of various sizes and focuses (AAA games, independent games, serious games, amongst others), and in different roles according to their specialization. Those roles include (but are not limited to): game designer, narrative designer, level designer, project manager, character designer, 2D artist, 3D artist, animator, gameplay programmer. Furthermore, they should be employable in other sectors that develop or use digital games or elements of digital games – e.g., in the form of “serious games” or as part of “gamification.” These sectors include, among others, education and training, teaching, material design, advertising and marketing, film and television production, press, visual arts and museums, automotive, telecommunications, aviation, and aerospace. Furthermore, students should be prepared for self-employment and creating their own business start-ups. Finally, graduates should not only be qualified to work in the current games industry, but should be also able to carry out academic and artistic experiments, come up with innovative approaches to problem solving, take aesthetic risks and respond independently to future technical and aesthetic changes in other industries as well.

3 Fields of Activity

Graduates apply their knowledge and skills in the following fields of activity:

Developing Games: Graduates shape the defining medium of the 21st century. They create digital games, in different roles according to their specialization: in Game Arts, Game Design, and Game Programming. They work in interdisciplinary and international teams, as employees in development studios of different sizes and focuses, as freelancers, and as entrepreneurs with their own companies. They work on AAA games, indie games, art games, and educational games. Thereby, our graduates make significant contributions to artistic expression, popular entertainment, knowledge transfer, and opinion-making in digital culture.

Communicating Games: Graduates are producers and mediators of knowledge about the artistic and technical development as well as societal and cultural functions of games. They research and teach in the fields of Game Arts, Game Design, Game Programming, Game Economics and Entrepreneurship, and Game Studies. This includes various forms of research and its communication and transfer: industry research in development studios, basic and applied research at universities, journalistic communication, consulting, multiplier activities in state and private institutions such as museums, galleries, libraries, and cultural offices. Teaching takes place at different levels: from industry-internal further education to vocational schools, to higher education. Thereby, our graduates contribute significantly to the social dissemination of literacy in media and games.

Gamifying Experiences: Graduates help to adapt the methods, services, and products of older established areas of administration and production to the requirements of digital technology and digital culture. By applying their state-of-the-art game development knowledge and skills, particularly in the areas of motivation and feedback, to other fields, they participate in the ongoing effort to streamline and gamify procedures in public institutions and a variety of trades and industries as diverse as telecommunications and automotive, management, and software development. Thereby, our graduates contribute significantly to making the advantages of digital work and workplace culture more accessible to a wider range of economic and social sectors.

4 Study Plan

Semester	Module	Module ECTS	Semester ECTS
1	Game Development Basics 1	10	30
	Media and Game Studies 1	5	
	Collaborative Project 1 (Ludic Games)	10	
	Reflection & Community 1	5	
2	Game Development Basics 2	10	30
	Media and Game Studies 2	5	
	Collaborative Project 2 (Narrative Games)	10	
	Reflection & Community 2	5	
3	Game Arts 1 or Game Design 1 or Game Programming 1	10	30
	Media and Game Studies 3	5	
	Collaborative Project 3 (Multiplayer Games)	10	
	Reflection & Community 3	5	
4	Game Arts 2 or Game Design 2 or Game Programming 2	10	30
	Media and Game Studies 4	5	
	Collaborative Project 4 (Experimental Games)	10	
	Reflection & Community 4	5	
5	Exchange & Practice: Internship or Exchange or Project	25	30
	Reflection & Community 5	5	
6	Game Arts 3 or Game Design 3 or Game Programming 3	10	32
	Media and Game Studies 5	7	
	Collaborative Project 5 (Impact Games)	10	
	Reflection & Community 6	5	
7	Game Arts 4 or Game Design 4 or Game Programming 4	6	28
	Bachelor Project	12	
	Colloquium & Presentation	5	
	Reflection & Community 7	5	

5 Alternative Study Plan

Semester	Module	Module ECTS	Semester ECTS
1	Game Development Basics 1	10	20
	Collaborative Project 1 (Ludic Games)	10	
2	Game Development Basics 2	10	20
	Collaborative Project 2 (Narrative Games)	10	
3	Game Arts 1 or Game Design 1 or Game Programming 1	10	20
	Media and Game Studies 1	5	
	Reflection & Community 1	5	
4	Game Arts 2 or Game Design 2 or Game Programming 2	10	20
	Media and Game Studies 2	5	
	Reflection & Community 2	5	
5	Exchange & Practice: Internship or Exchange or Project*	25	30
	Reflection & Community 5	5	
6	Game Arts 3 or Game Design 3 or Game Programming 3	10	20
	Collaborative Project 4 (Experimental Games)	10	
7	Game Arts 4 or Game Design 4 or Game Programming 4	6	21
	Media and Game Studies 3	5	
	Collaborative Project 3 (Multiplayer Games)	10	
8	Media and Game Studies 4	5	20
	Collaborative Project 5 (Impact Games)	10	
	Reflection & Community 3	5	
9	Bachelorarbeit (Bachelor Project)	12	22
	Kolloquium (Colloquium & Presentation)	5	
	Reflection & Community 7	5	
10	Media and Game Studies 5	7	17
	Reflection & Community 4	5	
	Reflection & Community 6	5	

* We recommend, as part of the alternative study track, an internship comprising 600 hours, which can be spread over a period of six months, or a self-initiated project, which as an individual assignment allows for flexible timing. The option of an exchange semester is generally not available on a part-time basis; however, it can be extended over two semesters if permitted by the partner university.

6 Modules

6.1 Game Development Basics 1

Module Code:	BA.001
Module Title:	Game Development Basics 1
Type of Module:	Mandatory Module
ECTS Credits:	10 ECTS
Language:	English
Duration of Module:	8 weeks
Recommended for Semester:	1
Frequency:	Annual
Module Coordinator:	Prof. Björn Bartholdy
Lecturers:	Prof. Björn Bartholdy (Media Design), Prof. Dr. Emmanuel Guardiola (Game Design), Prof. Dr. Greta Hoffmann (Game Design), Prof. Nanette Kaulig (3D Animation & CG Art for Games), Prof. Dr. Roland Klemke (Game Informatics), Prof. Dr. Jonas Zimmer (Game Informatics).
Learning Outcome:	Students are able to create all elements of a game (Art, Code, Design) by applying basics of visual design, classical and digital 2D Art and Animation as well as 3D Art, fundamental principles and elements of game design (specifically gameplay, prototyping, iteration) and core elements of programming (including data types, control flow, loops, and functions) in order to have the artistic and technical abilities to later collaborate with students/professionals of other specializations in game development projects (e.g. in “Collaborative Project 1”).
Module Content:	1) Game Arts: Visual Design Basics I – Introduction to key areas of visual design, including applied and fine arts, character design, environmental design, user experience (UX), and user interface (UI) design. This course provides foundational insights into the principles and practices across these disciplines Art and Animation Basics I – 2D/ 3D, e.g. introduction to drawing and modeling 2) Game Design: Introduction of Foundational Terminology (for instance: Game, Play, Spiel, Toy) Introduction to Gameplay (making choices, challenges, uncertainty, character mechanics) Introduction to Methods of Prototyping and Practical Exercises (for example, through board game prototyping, and game hacks) Introduction to Game Mechanics Classics of Game Design Theory 3) Game Programming: Introduction to the fundamentals of information technologies and programming languages. This sub-module familiarizes students with key programming terms such as data types, control flow, loops, and functions in order to utilize a game engine to create simple interactive programs by reading, writing, and editing code bases. 4) Music in Games I
Teaching and Learning Methods:	Lectures, seminars, tutorials
Assessment Method:	1) Game Arts: Visual Design Basics: Written Assignment (Design Analysis Essay / Reflective Paper); Individual submission (pass) Art and Animation Basics I: 2D/3D - practical exercise each (pass)

	2) Game Design: Practical tasks (pass): Evaluation of a hand-in with structured documentation of class and homework tasks - individual submission 3) Game Programming: Written Multiple-Choice Exam or Practical Examination (pass) 4) Music in Games I: Assignment (pass)
Workload (25 - 30 h ≙ 1 ECTS credit):	300 hours
Contact hours:	90 hours
Self-study:	210 hours
Recommended Prerequisites:	None
Recommended Reading:	*Game Arts* Bancroft, T. (2006). *Creating characters with personality*. Watson-Guptill. Gurney, J. (2010). *Color and light: A guide for the realist painter*. Andrews McMeel. Lynch, K. (1960). *The image of the city*. MIT Press. Robertson, S. (2013). *How to draw*. Design Studio Press. Robertson, S. (2014). *How to render*. Design Studio Press. *Game Design* Salen, K., & Zimmerman, E. (2003). *Rules of play: Game design fundamentals*. MIT Press. *Game Programming* Whitaker, R. B. (2022). *The C# player's guide* (5th ed.). Starbound Software.
Use of the Module in Other Degree Programs:	…
Particularities:	…
Last update:	August 2026

6.2 Media & Game Studies 1

Module Code:	BA.002
Module Title:	Media & Game Studies 1
Type of Module:	Mandatory Module
ECTS Credits:	5 ECTS
Language:	English
Duration of Module:	8 weeks
Recommended for Semester:	1
Frequency:	Annual
Module Coordinator:	Prof. Dr. Sonia Fizek
Lecturers:	Prof. Dr. Sonia Fizek (Media & Game Studies), Prof. Odile Limpach (Economics & Entrepreneurship for Games).
Learning Outcome:	*Overarching Learning Outcomes*

	Students have a foundational understanding of games as cultural and economic phenomena through introductory engagement with historical developments, key theories of play and games, basic concepts of Game Studies, and the structural evolution of the games industry, in order to contextualize and begin to critically reflect on their own artistic and practical work within broader cultural and economic frameworks. *Media & Game Studies* Students are enabled to analyze games and play from diverse academic perspectives and situate digital games within their historical development and theoretical framework through engagement with key scholarly texts, foundational theories of play, and interdisciplinary approaches in Game Studies, in order to develop a theoretically informed understanding of the medium and to inform their creative practice. *Economics & Entrepreneurship* The students can analyze the video game market and its evolution from an economic viewpoint by studying the recent history of the games market, applying basic marketing concepts to recognize market developments risks and opportunities, and to form their own sensibilities for economic opportunities regarding their future game projects or companies.
Module Content:	The module Media & Game Studies 1 introduces students to the historical foundations of games and digital games, as well as to key concepts and approaches in Game Studies and the games industry. Its aim is to provide an initial, structured understanding of games as a medium, of the terminology of play and games, and of the emergence and development of video game markets. From a Media and Game Studies perspective, students are introduced to interdisciplinary approaches from the humanities and social sciences. Topics include foundational theories of play and games (20th century); definitions of play and games; the ambiguity of play; analog play; computational logics of digital play, algorithmic play; classification of games; the meaning of play; basic history of digital media, particularly audiovisual media and foundational moments in the history of video games, introduction to the study of players (player research). The Economics and Entrepreneurship component addresses the historical and structural development of the games industry, including the American, European, and German markets, globalization processes, and industry structures. Further topics include basic concepts of strategic marketing, project management, presentation skills, and copyright regulations in Germany. By connecting these perspectives, the module enables students to develop a holistic understanding of games as both cultural artifacts and economic products. This foundation supports them in beginning to critically reflect on their own artistic and practical work within their specializations and project modules.
Teaching and Learning Methods:	Lectures, seminars, group work, presentations
Assessment Method:	Learning Portfolio
Workload (25 - 30 h ≙ 1 ECTS credit):	150 hours
Contact hours:	39 hours
Self-study:	111 hours
Recommended Prerequisites:	None
Recommended Reading:	*Media & Game Studies* Caillois, R. (1961). *Man, play and games* (Chapter I: The definition of play, pp. 3–10). University of Illinois Press. Fizek, S. (2022). *Playing at a distance: Borderland of video game aesthetic* (Introduction). The MIT Press. Fizek, S., Eggel, D. R., et al. (2025). *Green transition at play: State of the art report on the environmental and social sustainability of video and board game industries*. Project STRATEGIES - Sustainable Transition for Europe's Game Industries.

	Freyermuth, G. S. (2015). *Games | Game design | Game studies: An introduction* (Chapter 3.1: Theories of analog games vs. theories of digital games, pp. 191–200). transcript Verlag. Giddins, S. (2024). *Toy theory: Technology and imagination in play* (Introduction, pp. 1–22). The MIT Press. Graeber, D. (2014). What is the point if we can't have fun? *The Baffler*. https://thebaffler.com/salvos/whats-the-point-if-we-cant-have-fun Huizinga, J. (1949). *Homo ludens: A study of the play-element in culture* (Chapter I: Nature and significance of play as a cultural phenomenon, pp. 1–27). University of Illinois Press. Juul, J. (2005). *Half-real: Video games between real rules and fictional worlds* (Chapter 2: Video games and the classic game model). The MIT Press. Pötsch, H., & Jørgensen, K. (2023). Editorial: Futures. *Eludamos: Journal of Computer Game Culture, 14*(1), 1–7. https://eludamos.org/index.php/eludamos/article/view/7324/7790 Sicart, M. (2023). *Playing software: Homo ludens in computational culture*. The MIT Press. Suits, B. (2005). *The grasshopper: Games, life, and utopia* (3rd ed., Chapter 3: Construction of a definition, pp. 21–43). Broadview Press. Sutton-Smith, B. (1997). *The ambiguity of play* (Chapter I: Play and ambiguity, pp. 1–18). Harvard University Press. Taylor, T. N. (2023). Reimagining a future for game studies, from the ground up. *Eludamos: Journal of Computer Game Culture, 14*(1), 9–29. *Economics & Entrepreneurship* OpenStax. (n.d.). Developing a strategic plan (Chapters 2.1–2.2). In *Principles of marketing*. https://openstax.org/books/principles-marketing/pages/2-1-developing-a-strategic-plan Reynolds, G. (2020). *Presentation Zen*. Schreier, J. (2017). *Blood, sweat, and pixels*. https://www.youtube.com/watch?v=ZWmXi3TW1yA https://www.game.de/wp-content/uploads/2016/08/MMR-08-2020-Beilage-englisch.pdf https://www.gamesindustry.biz/how-to-protect-your-intellectual-property-in-the-games-industry https://www.gamesindustry.biz/ https://gamedevreports.substack.com/about https://newsletter.gamediscover.co/ https://www.thegamebusiness.com/ https://superjoost.substack.com/ https://www.gamesindustry.biz/
Use of the Module in Other Degree Programs:	…
Particularities:	…
Last update:	August 2026

6.3 Collaborative Project 1 (Ludic Games)

Module Code:	BA.003
Module Title:	Collaborative Project 1 (Ludic Games)
Type of Module:	Mandatory Module
ECTS Credits:	10 ECTS
Language:	English
Duration of Module:	8 Weeks
Recommended for Semester:	1
Frequency:	Annual
Module Coordinator:	Prof. Nanette Kaulig

Lecturers:	Prof. Björn Bartholdy (Media Design), Prof. Dr. Sonia Fizek (Media & Game Studies), Prof. Dr. Emmanuel Guardiola (Game Design), Prof. Dr. Greta Hoffmann (Game Design), Prof. Nanette Kaulig (3D Animation & CG Art for Games), Prof. Dr. Roland Klemke (Game Informatics), Prof. Odile Limpach (Economics & Entrepreneurship for Games), Prof. Dr. Jonas Zimmer (Game Informatics).
Learning Outcome:	Students are able to create a simple ludic game together with team members of other specializations by recalling knowledge on the game development process – from conception (pitching) and design to production, post-production, and presentation; developing and applying ludic patterns, generating artwork and establishing fundamental programming schemas; applying all elements of project management (initiation, planning, design, execution, monitoring, controlling, presenting); sharing complementary tasks in interdisciplinary teams in order to be prepared for future collaborations in interdisciplinary teams developing games of this genre.
Module Content:	● Pre-production: high concept, pitching, concept, concept art, game design documentation, prototyping, testing; ● Production: game design, game arts (character & environment art, animation, interface, audio design), programming/game informatics, level design; ● Post-production: documentation, post-mortem, publication, external pitching/communication; ● Project Management (initiation, planning and design; execution and construction; monitoring and controlling methods; completion).
Teaching and Learning Methods:	Project work, seminar, individual and group mentoring
Assessment Method:	Group Assessment (50%) • Intermediate Presentation (pass) • Final Presentation (pass) • Game Project (playable prototype) in regards to overall quality, originality and relevance to theme “Ludic Game” (50%) Individual Assessment (50%) • documentation (text, visuals) of own work and workflow in TH Spaces
Workload (25 - 30 h ≙ 1 ECTS credit):	300 hours
Contact hours:	30 hours
Self-study:	270 hours
Recommended Prerequisites:	None
Recommended Reading:	Koster, R. (2005). *A theory of fun for game design*. Paraglyph Press.
Use of the Module in Other Degree Programs:	…
Particularities:	…
Last update:	August 2026

6.4 Reflection & Community 1

Module Code:	BA.004
Module Title:	Reflection & Community 1
Type of Module:	Mandatory Module
ECTS Credits:	5 ECTS
Language:	English

Duration of Module:	16 weeks
Recommended for Semester:	1
Frequency:	Annual
Module Coordinator:	Dr. André Czauderna
Lecturers:	Varies by semester
Learning Outcome:	Students are able to analyze their own professional practice; synthesize perspectives from diverse fields both inside and outside game development; and apply key skills – such as self-reliance, organization, teamwork, and communication – by reflecting on their artistic and professional growth, evaluating various academic and industry viewpoints, and contributing to game-related, community-oriented, and broader interdisciplinary cross-cohort projects. As a result, they are intellectually, psychologically, and socially prepared for interdisciplinary and intercultural teamwork in the evolving 21st-century labor market, within and beyond the games industry.
Module Content:	1) Work Groups: In these cross-cohort, multi-semester groups – each accompanied by a faculty or staff mentor – students actively contribute to CGL's unique culture and community. Among other activities, the groups support CGL's initiatives in areas such as applied and artistic research, course guidance, communication, events, mental health, publishing (Broken Paternoster Games), student life, and tech service & development. 2) Individual and Group Mentoring: with a main focus on student artistic and professional development in their respective area of specialization (Game Arts, Game Design, or Game Programming). 3) Profile² Week: During this workshop week, students can choose a highly specialized, interdisciplinary, and/or project-oriented course. 4) Guest Lectures: 4 to 6 guest lectures offering a variety of perspectives from both game development and game studies.
Teaching and Learning Methods:	Lectures, seminars, group work, individual and group mentoring
Assessment Method:	Mandatory attendance and proof of achievement in Work Groups and Profile² Week
Workload (25 - 30 h ≙ 1 ECTS credit):	150 hours
Contact hours:	60 hours
Self-study:	90 hours
Required Prerequisites:	Mandatory attendance in the sub-modules Work Groups and Profile² Week
Recommended Reading:	None
Use of the Module in Other Degree Programs:	Parts of the module, i.e., the Guest Lectures and Profil² Courses, are open to all CGL students.
Particularities:	Guest Lectures, Work Groups, and ProfiL² Courses take place in cross-cohort groups. A general introduction to the Reflection & Community-Modules at CGL will be provided at the beginning of the first semester.
Last update:	August 2026

6.5 Game Development Basics 2

Module Code:	BA.005
Module Title:	Game Development Basics 2
Type of Module:	Mandatory Module
ECTS Credits:	10 ECTS

Language:	English
Duration of Module:	8 Weeks
Recommended for Semester:	2
Frequency:	Annual
Module Coordinator:	Prof. Björn Bartholdy
Lecturers:	Prof. Björn Bartholdy (Media Design), Prof. Dr. Emmanuel Guardiola (Game Design), Prof. Dr. Greta Hoffmann (Game Design), Prof. Nanette Kaulig (3D Animation & CG Art for Games), Prof. Dr. Roland Klemke (Game Informatics), Prof. Dr. Jonas Zimmer (Game Informatics).
Learning Outcome:	Students are able to create a well-rounded game (including Art, Code, Design) by applying basics of visual design, 3D art and animation, fundamental principles and elements of narrative design, and by implementing basic game prototypes with and for game engines in order to have the artistic and technical abilities to later collaborate with students/professionals of other specializations in game development projects (e.g. in “Collaborative Project 2”).
Module Content:	1) Game Arts: Visual Design Basics II – Students will apply and communicate visual design principles through analysis and basic writing Art and Animation Basics II: 3D, introduction to software and workflow 2) Game Design: Theory and state of art of narrative design; basic and complex narrative mechanics in games; Game narratives based on characters, scenarios, and stories; mechanics Introduction to Meta Patterns (Play in Animals, Origin of Ritualistic Play) 3) Game Programming: Setting up development pipelines, defining interdisciplinary connection points during development, utilizing collaboration tools and version-control, to interact with a game engine in line with specialization and project role for effective teamwork. 4) Sound Design I
Teaching and Learning Methods:	Lectures, seminars, tutorials
Assessment Method:	1) Game Arts: Visual Design Basics: Written Assignment (Design Analysis Essay / Reflective Paper); Individual submission (pass) Art and Animation Basics II: 3D - practical exercise each (pass) 2) Game Design: Presentations of assigned topics; individual assignment (pass), practical exercise; individual performance (pass) 3) Game Programming: Written Multiple-Choice Exam or Practical Examination (pass) 4) Sound Design I: Assignment (pass)
Workload (25 - 30 h ≙ 1 ECTS credit):	300 hours
Contact hours:	90 hours
Self-study:	210 hours
Recommended Prerequisites:	BA.001
Recommended Reading:	*Game Arts*

	Murdock, K. L. (2024). *Autodesk Maya 2025 basics guide*. SDC Publications. Sainsbury, M. (2017). *Game art*. Oldcastle Books. Totten, C. W. (2014). *An architectural approach to level design*. CRC Press. Weinschenk, S. (2011). *100 things every designer needs to know about people*. New Riders. *Game Design* Salen, K., & Zimmerman, E. (2003). *Rules of play: Game design fundamentals*. MIT Press. *Game Programming* Whitaker, R. B. (2022). *The C# player's guide* (5th ed.). Starbound Software.
Use of the Module in Other Degree Programs:	…
Particularities:	…
Last update:	August 2026

6.6 Media & Game Studies 2

Module Code:	BA.006
Module Title:	Media & Game Studies 2
Type of Module:	Mandatory Module
ECTS Credits:	5 ECTS
Language:	English
Duration of Module:	8 Weeks
Recommended for Semester:	2
Frequency:	Annual
Module Coordinator:	Prof. Dr. Sonia Fizek
Lecturers:	Prof. Dr. Sonia Fizek (Media & Game Studies), Prof. Odile Limpach (Economics & Entrepreneurship for Games)
Learning Outcome:	*Overarching Learning Outcomes* Students develop an initial understanding of how theoretical and conceptual approaches from Media and Game Studies as well as Economics and Entrepreneurship inform and shape game development through engagement with narrative theories, media concepts, and production-oriented frameworks, in order to connect academic knowledge with their own creative practice. *Media & Game Studies* The students are enabled to analyze cultural artefacts from the perspective of narrative theory, media theory and cultural theory , and can place digital games in the larger context of the history of media and the arts, with the help of theories of analog arts and media, specifically in regard to audiovisuality and narration and foundational concepts from non-interactive narratology. As a result, the students can enrich creatively and intellectually their creative and professional work and are able to apply aesthetic theories of narration to their game development and inform their creative process in the "Narrative Games" collaborative projects of the same semester. *Economics & Entrepreneurship*

	The students can create a marketing plan for a game project, by applying the traditional pillars of marketing mix, defining the target group, the marketing objectives and strategies and planning marketing actions, identifying the relevant macro-economic factors of the videogame market, to finally be able to create, apply and support sales and marketing strategies for their future game projects and recognize early market chances and risks for game development. The students learn and apply postmortem analysis and analyze the role of a producer.
Module Content:	Building on the foundations established in the first semester, the *module Media & Game Studies 2* focuses on the interconnection between Media and Game Studies, Economics and Entrepreneurship, and the students' creative practice – specifically with regard to their collaborative project this semester. Its aim is to provide an initial understanding of how theoretical and conceptual approaches from adjacent fields can inform and shape game development itself, fostering an integrated perspective on academic knowledge and practical work. To achieve this goal, the seminar in Media and Game Studies will focus exemplary on narrative theories, their media evolution and their implications for game development. Topics include authorship, environmental storytelling, worldbuilding, transmedia narration, and established as well as experimental narrative conventions in games. The seminar also addresses intersections between literary and playful forms, the impact of AI on narrative techniques, and selected perspectives from Media Studies, such as computational logics and key developments in analog and digital media. The Economics and Entrepreneurship component complements this aesthetic-conceptual perspective by introducing foundational concepts of marketing and communication, including communication theory, macroeconomic contexts, and media management. Students are also familiarized with the role of the producer and basic analytical approaches, such as post-mortem methodology, to understand production processes and decision-making in game development. Whereas Media & Game Studies, consequently, prepares students on a conceptual level for their creative work – exemplified through narrative design – Economics and Entrepreneurship prepares them to approach this work from a production-oriented perspective. In their collaborative projects, especially in the second semester, students practice applying narrative, communication, and marketing theories, thereby developing their ability to translate theoretical knowledge into creative and production contexts.
Teaching and Learning Methods:	Lectures, seminars, presentations
Assessment Method:	Project Work – narrative concept based on spatial and emergent storytelling in Media & Game Studies (70%); Oral Presentation in Economics & Entrepreneurship with written support and video report (30%)
Workload (25 - 30 h ≙ 1 ECTS credit):	150 hours
Contact hours:	39 hours
Self-study:	111 hours
Recommended Prerequisites:	BA.002
Recommended Reading:	*Media & Game Studies* Bowman, D. (2019). Domesticating the first-person shooter: The emergent challenge of *Gone Home*'s homely chronotope. *Press Start, 5*(2), 150–175. Freyermuth, G. S. (2017). *Transmedia storytelling: Twelve postulates*. Hadou, N., & Makhlouf, A. (2024). Elements of cinematic language: Exploring narrative structure and artistic dimensions in shaping cinematic discourse. *Zaouli, 8*(1), 471–498. Jenkins, H. (2004). Game design as narrative architecture. In N. Wardrip-Fruin & P. Harrigan (Eds.), *First person: New media as story, performance, and game* (pp. 118–130). MIT Press. Jenkins, H. (2007). *Transmedia storytelling 101*. http://henryjenkins.org/2007/03/transmedia_storytelling_101.html Neitzel, B. (2014). Narrativity of computer games. In P. Hühn, J. C. Meister, J. Pier, & W. Schmid (Eds.), *Handbook of narratology* (pp. 608–622). De Gruyter.

	Schmidt, J. N. (2019, February 4). Narration in film. In P. Hühn et al. (Eds.), *The living handbook of narratology*. Hamburg University Press. Thon, J. N. (2016). Narratorial representations across media. In *Transmedial narratology and contemporary media culture* (pp. 104–122). University of Nebraska Press. Vogler, C. (2007). *The writer's journey: Mythic structure for writers* (Book 1, Chapter 1: A practical guide, pp. 3–20). Michael Wiese Productions. Economics & Entrepreneurship Long, S. M. (2018). *Dark alley marketing*. Moore, G. A. (2014). *Crossing the chasm* (3rd ed.): *Marketing and selling disruptive products to mainstream customers*. Collins Business Essentials. https://www.youtube.com/watch?v=wRe-81QyzU8 https://www.youtube.com/watch?v=isEMP5_Eems https://openstax.org/books/introduction-business/pages/1-4-macroeconomics-the-big-picture. https://openstax.org/books/principles-marketing/pages/2-3-purpose-and-structure-of-the-marketing-plan https://www.rengenmarketing.com/blog/video-game-marketing/?cn-reloaded=1 https://www.reddit.com/r/gamedev/comments/13g6zg4/please_stop_neglecting_a_proper_marketing_plan/?rdt=38998
Use of the Module in Other Degree Programs:	…
Particularities:	…
Last update:	August 2026

6.7 Collaborative Project 2 (Narrative Games)

Module Code:	BA.007
Module Title:	Collaborative Project 2 (Narrative Games)
Type of Module:	Mandatory Module
ECTS Credits:	10 ECTS
Language:	English
Duration of Module:	8 Weeks
Recommended for Semester:	2
Frequency:	Annual
Module Coordinator:	Prof. Dr. Sonia Fizek
Lecturers:	Prof. Björn Bartholdy (Media Design), Prof. Dr. Sonia Fizek (Media & Game Studies), Prof. Dr. Emmanuel Guardiola (Game Design), Prof. Dr. Greta Hoffmann (Game Design), Prof. Nanette Kaulig (3D Animation & CG Art for Games), Prof. Dr. Roland Klemke (Game Informatics), Prof. Odile Limpach (Economics & Entrepreneurship for Games), Prof. Dr. Jonas Zimmer (Game Informatics).
Learning Outcome:	Students are able to create a narrative game together with team members of other specializations by recalling knowledge on the game development process – from conception (pitching) and design to production, post-production and presentation; developing and implementing narrative (game) structures; writing and adapting fictional and documentary content; applying agile project management methods and reflecting on the role of a producer; sharing complementary tasks in interdisciplinary teams in order to be prepared for future collaborations in interdisciplinary teams developing games of this genre.
Module Content:	● Preproduction: high concept, pitching, concept, concept art, game design documentation, prototyping, testing;

	● Production: game design, game arts (character & world design, animation, interface, audio design), programming/game informatics, level design; ● Post Production: documentation, post-mortem, publication, external pitching/communication; ● Project Management: project management methods, project management software, relationships/communication with stakeholders, cost management.
Teaching and Learning Methods:	Project work, seminar, individual and group mentoring
Assessment Method:	Group Assessment (50%) • Intermediate Presentation (pass) • Final Presentation (pass) • Game Project (playable prototype) in regards to overall quality, originality and relevance to theme “Narrative Game” (50%) Individual Assessment (50%) • documentation (text, visuals) of own work and workflow in TH Spaces
Workload (25 - 30 h ≙ 1 ECTS credit):	300 hours
Contact hours:	30 hours
Self-study:	270 hours
Recommended Prerequisites:	None
Recommended Reading:	Aarseth, E. (1997). *Cybertext: Perspectives on ergodic literature*. Johns Hopkins University Press. Bizzocchi, J., & Tanenbaum, J. (2011). Well read: Applying close reading techniques to gameplay experiences. *Well Played Journal, 1*(1), 289–315. Chatman, S. (1978). *Story and discourse: Narrative structure in fiction and film.* Cornell University Press. Jenkins, H. (2004). Game design as narrative architecture. In N. Wardrip-Fruin & P. Harrigan (Eds.), *First person: New media as story, performance, and game* (pp. 118–130). MIT Press. Juul, J. (2005). *Half-real: Video games between real rules and fictional worlds*. MIT Press. Koster, R. (2013). *Theory of fun for game design* (2nd ed.). O’Reilly. Laurel, B. (1991). *Computers as theatre*. Addison-Wesley. Murray, J. H. (1997). *Hamlet on the holodeck: The future of narrative in cyberspace*. MIT Press. Nitsche, M. (2008). *Video game spaces: Image, play, and structure in 3D worlds*. MIT Press. Ryan, M.-L. (2001). *Narrative as virtual reality: Immersion and interactivity in literature and electronic media*. Johns Hopkins University Press. Salen, K., & Zimmerman, E. (2004). *Rules of play: Game design fundamentals*. MIT Press. Schell, J. (2019). *The art of game design: A book of lenses* (3rd ed.). CRC Press. Skolnick, E. (2014). *Video game storytelling: What every developer needs to know about narrative techniques*. Watson-Guptill. Tosca, S. P., & Klastrup, L. (2019). *Transmedial worlds in everyday life: Networked reception, social media, and fiction*. Routledge. Wardrip-Fruin, N., & Harrigan, P. (Eds.). (2004). *First person: New media as story, performance, and game*. MIT Press.
Use of the Module in Other Degree Programs:	…
Particularities:	…
Last update:	August 2026

6.8 Reflection & Community 2

Module Code:	BA.008
Module Title:	Reflection & Community 2
Type of Module:	Mandatory Module
ECTS Credits:	5 ECTS
Language:	English
Duration of Module:	16 weeks
Recommended for Semester:	2
Frequency:	Annual
Module Coordinator:	Dr. André Czauderna
Lecturers:	Varies by semester
Learning Outcome:	Students are able to analyze their own professional practice; synthesize perspectives from diverse fields both inside and outside game development; and apply key skills – such as self-reliance, organization, teamwork, and communication – by reflecting on their artistic and professional growth, evaluating various academic and industry viewpoints, and contributing to game-related, community-oriented, and broader interdisciplinary cross-cohort projects. As a result, they are intellectually, psychologically, and socially prepared for interdisciplinary and intercultural teamwork in the evolving 21st-century labor market, within and beyond the games industry.
Module Content:	1) Work Groups: In these cross-cohort, multi-semester groups – each accompanied by a faculty or staff mentor – students actively contribute to CGL's unique culture and community. Among other activities, the groups support CGL's initiatives in areas such as applied and artistic research, course guidance, communication, events, mental health, publishing (Broken Paternoster Games), student life, and tech service & development. 2) Individual and Group Mentoring: with a main focus on student artistic and professional development in their respective area of specialization (Game Arts, Game Design, or Game Programming). 3) Profile² Week: During this workshop week, students can choose a highly specialized, interdisciplinary, and/or project-oriented course. 4) Guest Lectures: 4 to 6 guest lectures offering a variety of perspectives from both game development and game studies.
Teaching and Learning Methods:	Lectures, seminars, group work, individual and group mentoring
Assessment Method:	Mandatory attendance and proof of achievement in Work Groups and Profile² Week
Workload (25 - 30 h ≙ 1 ECTS credit):	150 hours
Contact hours:	60 hours
Self-study:	90 hours
Required Prerequisites:	Mandatory attendance in the sub-modules Work Groups and Profile² Week
Recommended Reading:	None
Use of the Module in Other Degree Programs:	Parts of the module, i.e., the Guest Lectures and Profil² Courses, are open to all CGL students.
Particularities:	Guest Lectures, Work Groups, and ProfiL² Courses take place within cross-cohort groups.
Last update:	August 2026

6.9 Game Arts 1

Module Code:	BA.009.1
Module Title:	Game Arts 1
Type of Module:	Elective
ECTS Credits:	10 ECTS
Language:	English
Duration of Module:	8 Weeks
Recommended for Semester:	3
Frequency:	Annual
Module Coordinator:	Prof. Björn Bartholdy, Prof. Nanette Kaulig
Lecturers:	Prof. Björn Bartholdy (Media Design), Prof. Nanette Kaulig (3D Animation & CG Art for Games)
Learning Outcome:	Students are able to conceptualize and realize visual and sonic elements for games by • practicing drawing, e.g. life drawing; • designing characters, environments, objects/props, interfaces, etc.; • modelling in a 3D software; • creating 3D in-game animations; • creating real and virtual soundscapes between sound and music; • designing dynamic virtual sound maps; • analyzing sound and music in games in order to have the subject-specific skills to create a multiplayer game in collaboration with Game Designers and Game Programmers.
Module Content:	● Drawing Practice, e.g. life drawing ● Creative Process - Visual Research, Idea Generation, Aesthetic Concept, Concept Art, Presentation ● 3D Modeling, e.g. character creation ● 3D Animation - in-game e.g. Idle, Jump, Walk ● Music in Games II (a course delivered over three 180-minute sessions, taught jointly with students from other specializations) *General Remark on Game Arts 1–4: The study program encourages interdisciplinary exploration across its core electives (in semesters 3, 4, 6, and 7). While not mandatory, students have the opportunity to engage with courses outside their primary specialization – for example, complementing a Game Arts course with a Game Design course. Interdisciplinary courses typically correspond to one of the three weekly 180-minute course blocks offered in the first half of the semester and can be taken in place of a course within the student's own specialization. Each semester, syllabi will indicate not only which courses qualify as interdisciplinary explorations but also which ones may be exchanged across specializations.*
Teaching and Learning Methods:	Seminar, Tutorial
Assessment Method:	*Creative Process I (50% of total module grade)* • Presentation (oral/visual) of the developed concept • Written and/or visual documentation, e.g., a pitch video or design dossier *Art and Animation III (50% of total module grade)* • 3D Character Animation: A practical exercise is being graded (50% of total module grade). • Drawing Practice: Best art pieces created in class are being collected as portfolio (pass) • 3D Modeling: A practical exercise is to be created (pass) *Music in Games II (pass)* • Assignment (pass)

Workload (25 - 30 h ≙ 1 ECTS credit):	300 hours
Contact hours:	90 hours
Self-study:	210 hours
Recommended Prerequisites:	BA.005
Recommended Reading:	Cooper, J. (2021). *Game anim*. CRC Press. Krug, S. (2014). *Don't make me think, revisited: A common sense approach to web usability* (3rd ed.). New Riders. Stanchfield, W., & Hahn, D. (2009). *Drawn to life: 20 golden years of Disney master classes: The Walt Stanchfield lectures*. Focal Press. Thomas, F., & Johnston, O. (1995). *The illusion of life*. Disney Press. Williams, R. (2009). *The animator's survival kit: A manual of methods, principles and formulas for classical, computer, games, stop motion and internet animators*. Faber and Faber.
Use of the Module in Other Degree Programs:	…
Particularities:	…
Last update:	August 2026

6.10 Game Design 1

Module Code:	BA.009.2
Module Title:	Game Design 1
Type of Module:	Elective
ECTS Credits:	5 ECTS
Language:	English
Duration of Module:	8 Weeks
Recommended for Semester:	3
Frequency:	Annual
Module Coordinator:	Prof. Dr. Emmanuel Guardiola, Prof. Dr. Greta Hoffmann
Lecturers:	Prof. Dr. Emmanuel Guardiola (Game Design), Prof. Dr. Greta Hoffmann (Game Design)
Learning Outcome:	Students are able to • create a level for a game – by, for instance, developing, applying the rational level design methodology • create a multiplayer prototype – by, for example, applying multiplayer design methodology and tools • analyze games – by investigating current and relevant games • understand the inherent qualities and opportunities within fundamental game design tools (dice, playing fields, figures, levels, balls, tokens) in order to have the subject-specific skills to create a multiplayer game in collaboration with Game Artists and Game Programmers.
Module Content:	● Multiplayer design (e.g. multiplayer design methodology and tools, iterative prototyping); ● Analyses of multiplayer games (e.g. social interactions in local multiplayer, world changes based on player choice, interactive storytelling) ● Level design and advanced prototyping (e.g. level design methodology and tools, iterative prototyping, playtesting)

	● Conduct research and prepare presentations with meaningful game tasks on the various tools used in game design (dice (randomness, the play with destiny), levels (using measurement for coordinating time and growth), figurines (the vessels of player's consciousness), tokens (programmable symbols), playing fields (representation of the game's space and time) ● Music in Games II (a course delivered over three 180-minute sessions, taught jointly with students from other specializations) *General Remark on Game Design 1–4: The study program encourages interdisciplinary exploration across its core electives (in semesters 3, 4, 6, and 7). While not mandatory, students have the opportunity to engage with courses outside their primary specialization – for example, complementing a Game Design course with a Game Programming course. Interdisciplinary courses typically correspond to one of the three weekly 180-minute course blocks offered in the first half of the semester and can be taken in place of a course within the student's own specialization. Each semester, syllabi will indicate not only which courses qualify as interdisciplinary explorations but also which ones may be exchanged across specializations.*
Teaching and Learning Methods:	Lecture, seminar, tutorial, practical exercises
Assessment Method:	Two of three Game Design courses have assignments that are graded (they consist of 50% each of the total grade), any other assignment will be pass/fail. Project assignment: Hand-in with structured documentation of class and homework tasks - individual submission Presentations of assigned topics: individual assignment. In addition, there is a pass/fail assignment in Music in Games II, taught jointly with students from other specializations.
Workload (25 - 30 h ≙ 1 ECTS credit):	300 hours
Contact hours:	90 hours
Self-study:	210 hours
Recommended Prerequisites:	BA.005
Recommended Reading:	*Tools we use* Botermans, J. (2008). *The book of games: Strategy, tactics & history* (E. L. Fankbonner, Trans.). Sterling. Parlett, D. (1999). *The Oxford history of board games*. Oxford University Press.
Use of the Module in Other Degree Programs:	…
Particularities:	…
Last update:	August 2026

6.11 Game Programming 1

Module Code:	BA.009.3
Module Title:	Game Programming 1
Type of Module:	Elective
ECTS Credits:	10 ECTS
Language:	English
Duration of Module:	8 Weeks
Recommended for Semester:	3

Frequency:	Annual
Module Coordinator:	Prof. Dr. Roland Klemke, Prof. Dr. Jonas Zimmer
Lecturers:	Prof. Dr. Roland Klemke (Game Informatics), Prof. Dr. Jonas Zimmer (Game Informatics)
Learning Outcome:	The students are able to create modular, reusable software packages by • applying object-oriented design principles • organize data in the best suited structure for its use-case • planning and notate the software architecture in order to create well-structured, extendable, maintainable, and reusable code. The students are able to synchronize game states on multiple devices by • implementing a server-client architecture • making informed decisions on data authority • applying strategies of reconciliation to make up for transmission errors • utilizing network tools in order to program a playable multiplayer collaborative project.
Module Content:	1) Game Programming III: Introduction to C++, object-oriented programming principles, software architecture design and notation. 2) Algorithms: algorithms and data structures for games. 3) Network Programming: Introduction to network technology, development of synchronized environments and game states. 4) Music in Games II (a course delivered over three 180-minute sessions, taught jointly with students from other specializations) *General Remark on Game Programming 1–4: The study program encourages interdisciplinary exploration across its core electives (in semesters 3, 4, 6, and 7). While not mandatory, students have the opportunity to engage with courses outside their primary specialization – for example, complementing a Game Programming course with a Game Design course. Interdisciplinary courses typically correspond to one of the three weekly 180-minute course blocks offered in the first half of the semester and can be taken in place of a course within the student's own specialization. Each semester, syllabi will indicate not only which courses qualify as interdisciplinary explorations but also which ones may be exchanged across specializations.*
Teaching and Learning Methods:	Lecture, seminar, tutorial, practical exercises
Assessment Method:	1) Game Programming III: Homework or Coursework (30%) 2) Algorithms: Practical Exercise (pass) 3) Network Programming: Practical Exercise (70%) 4) Music in Games II: Assignment (pass)
Workload (25 - 30 h ≙ 1 ECTS credit):	300 hours
Contact hours:	90 hours
Self-study:	210 hours
Recommended Prerequisites:	BA.005
Recommended Reading:	Stroustrup, B. (2024). *Programming: Principles and practice using C++* (3rd ed.). Addison Wesley.
Use of the Module in Other Degree Programs:	
Particularities:	…
Last update:	August 2026

6.12 Media & Game Studies 3

Module Code:	BA.010
Module Title:	Media & Game Studies 3
Type of Module:	Mandatory Module
ECTS Credits:	5 ECTS
Language:	English
Duration of Module:	8 Weeks
Recommended for Semester:	3
Frequency:	Annual
Module Coordinator:	Prof. Dr. Sonia Fizek
Lecturers:	Prof. Dr. Sonia Fizek (Media & Game Studies), Prof. Odile Limpach (Economics & Entrepreneurship for Games).
Learning Outcome:	*Overarching Learning Outcome* Students develop an understanding of players as central agents in digital game cultures and markets through engagement with hermeneutic analysis, Media Studies perspectives, and economic and management frameworks, in order to critically interpret player behavior and act strategically within cultural and market contexts. *Media & Game Studies* The students are enabled to critically analyze works of interactive audiovisual art and contextualize these in the current transition from analog to digital culture, by: • studying the aesthetic, cultural and ethical dimensions of digitalization, • evaluating relevant cultural, aesthetic and economic theories, • studying the foundations of hermeneutic analysis, • learning how to close-read and interpret digital games and non-linear digital artifacts (the so-called ludo-hermeneutics). As a result, the students can deepen their understanding of the underlying cultural and ethical developments of digital culture, which allows them to contextualize their creative and professional work therein. *Economics & Entrepreneurship* The students can critically analyze current market economic evolutions and elaborate their own hypothesis on future market developments by studying materials of various market research institutes, distinguishing between buyer behavior influencing factors and proposing factors to be considered in different markets in order to assess the market potential of their game projects and choose accordingly the platforms and business models. Exploration of motivation theories, communication strategies, and collaboration within multicultural teams. Within project management, the students will reflect on communication strategies, management habits, and problem-solving techniques.
Module Content:	The module *Media and Game Studies 3* highlights the role of the players in both its seminar components. The latter both foster an understanding why players engage with games the way they do, what desires, anxieties, cultural values and ethical sensibilities shape their experience, is precisely what equips students to read consumer behavior and market developments. Students learn that aesthetic choices in digital games are never made in a cultural vacuum – they are also market decisions, platform decisions, and audience decisions. Together, the two seminars cultivate the ability to interpret digital culture critically and to act within its economic structures strategically. *Media & Game Studies* • School of Seeing/Looking: basics of hermeneutic analysis (from text, through audio-visual media to simulation / digital games), the art of interpreting nonlinear media and digital games, the practice of ludo-hermeneutics - how games produce meaning and how games are “read” by the audience.

	• Introduction to Media Studies: ethical questions related to digital media (inter alia: contemporary digital art and game studies, automation, AI, data cultures, eco-criticism). *Economics & Entrepreneurship* • Comparative media economics, development of markets and marketing strategies, consumer behavior, management and communication principles. • Problem solving methodologies, Management motivation theories. • Theories of management and leadership
Teaching and Learning Methods:	Lecture, seminar, presentation, practical exercises
Assessment Method:	Learning Portfolio
Workload (25 - 30 h ≙ 1 ECTS credit):	150 hours
Contact hours:	39 hours
Self-study:	111 hours
Recommended Prerequisites:	BA.006
Recommended Reading:	*Media & Game Studies* Fernández-Vara, C. (2024). *Introduction to game analysis* (3rd ed.). Routledge. Kłosiński, M. (2022). How to interpret digital games? A hermeneutic guide in ten points. *Game Studies, 22*(2). Marino, M. C. (2020). *Critical code studies: Introduction*. MIT Press. Ricoeur, P. (1976). *Interpretation theory: Discourse and the surplus of meaning*. Texas Christian University Press. Werning, S. (2021). *Making games: The politics and poetics of game creation tools*. MIT Press. *Economics & Entrepreneurship* Sutherland, J. (2015). *Scrum: The art of doing twice the work in half the time*. Crown Business. https://newzoo.com/insights/articles/ https://superjoost.substack.com/ https://www.visualcapitalist.com/wp-content/uploads/2020/11/history-of-gaming-by-revenue-share-full-size.html https://vginsights.com/ https://www.gamesindustry.biz/ https://gamedevreports.substack.com/about https://newsletter.gamediscover.co/ https://www.thegamebusiness.com/ https://openstax.org/books/principles-marketing/pages/3-1-understanding-consumer-markets-and-buying-behavior and https://openstax.org/books/principles-management/pages/1-2-the-roles-managers-play https://www.youtube.com/watch?v=7c8xP1gRIWs and https://www.youtube.com/watch?v=XU0llRltyFM&t=3s and Read https://docs.google.com/document/d/1OP9gJJYeZiYzZYHl82BlepvQIICHZsHecU-uBy5pxwKg/edit?usp=sharing
Use of the Module in Other Degree Programs:	…
Particularities:	…
Last update:	August 2026

6.13 Collaborative Project 3 (Multiplayer Games)

Module Code:	BA.011
Module Title:	Collaborative Project 3 (Multiplayer Games)
Type of Module:	Mandatory Module
ECTS Credits:	10 ECTS
Language:	English
Duration of Module:	8 Weeks
Recommended for Semester:	3
Frequency:	Annual
Module Coordinator:	Prof. Björn Bartholdy
Lecturers:	Prof. Björn Bartholdy (Media Design), Prof. Dr. Sonia Fizek (Media & Game Studies), Prof. Dr. Emmanuel Guardiola (Game Design), Prof. Dr. Greta Hoffmann (Game Design), Prof. Nanette Kaulig (3D Animation & CG Art for Games), Prof. Dr. Roland Klemke (Game Informatics), Prof. Odile Limpach (Economics & Entrepreneurship for Games), Prof. Dr. Jonas Zimmer (Game Informatics).
Learning Outcome:	Students are able to create a multiplayer game together with team members of other specializations by recalling knowledge on the game development process – from conception (pitching) and design to production, post-production and presentation; using knowledge of multiplayer game design; applying management and communication methods as well as agile project management methods and post mortem; sharing complementary tasks in interdisciplinary teams in order to be prepared for future collaborations in interdisciplinary teams developing games of this genre.
Module Content:	● Preproduction: high concept, pitching, concept, concept art, game design documentation, prototyping, testing; ● Production: game design, game arts (character & world design, animation, interface, audio design), programming/game informatics, level design; ● Post Production: documentation, post-mortem, publication, external pitching/communication. ● Project Management: moderating conflicts, cost management, virtual project management, international standards.
Teaching and Learning Methods:	Project work, seminar, individual and group mentoring
Assessment Method:	Group Assessment (50%) • Intermediate Presentation (pass) • Final Presentation (pass) • Game Project (playable prototype) in regards to overall quality, originality and relevance to theme “Multiplayer Game” (50%) Individual Assessment (50%) • documentation (text, visuals) of own work and workflow in TH Spaces
Workload (25 - 30 h ≙ 1 ECTS credit):	300 hours
Contact hours:	30 hours
Self-study:	270 hours
Recommended Prerequisites:	None
Recommended Reading:	None

Use of the Module in Other Degree Programs:	…
Particularities:	…
Last update:	August 2026

6.14 Reflection & Community 3

Module Code:	BA.012
Module Title:	Reflection & Community 3
Type of Module:	Mandatory Module
ECTS Credits:	5 ECTS
Language:	English
Duration of Module:	16 Weeks
Recommended for Semester:	3
Frequency:	Annual
Module Coordinator:	Dr. André Czauderna
Lecturers:	Varies by semester
Learning Outcome:	Students are able to analyze their own professional practice; synthesize perspectives from diverse fields both inside and outside game development; and apply key skills – such as self-reliance, organization, teamwork, and communication – by reflecting on their artistic and professional growth, evaluating various academic and industry viewpoints, and contributing to game-related, community-oriented, and broader interdisciplinary cross-cohort projects. As a result, they are intellectually, psychologically, and socially prepared for interdisciplinary and intercultural teamwork in the evolving 21st-century labor market, within and beyond the games industry.
Module Content:	1) Work Groups: In these cross-cohort, multi-semester groups – each accompanied by a faculty or staff mentor – students actively contribute to CGL's unique culture and community. Among other activities, the groups support CGL's initiatives in areas such as applied and artistic research, course guidance, communication, events, mental health, publishing (Broken Paternoster Games), student life, and tech service & development. 2) Individual and Group Mentoring: with a main focus on student artistic and professional development in their respective area of specialization (Game Arts, Game Design, or Game Programming). 3) Profile² Week: During this workshop week, students can choose a highly specialized, interdisciplinary, and/or project-oriented course. 4) Guest Lectures: 4 to 6 guest lectures offering a variety of perspectives from both game development and game studies.
Teaching and Learning Methods:	Lecture, seminar, group work, individual and group mentoring
Assessment Method:	Mandatory attendance and proof of achievement in Work Groups and Profile² Week
Workload (25 - 30 h ≙ 1 ECTS credit):	150 hours
Contact hours:	60 hours
Self-study:	90 hours
Required Prerequisites:	Mandatory attendance in the sub-modules Work Groups and Profile² Week
Recommended Reading:	None

Use of the Module in Other Degree Programs:	Parts of the module, i.e., the Guest Lectures and Profil² Courses, are open to all CGL students.
Particularities:	Guest Lectures, Work Groups, and ProfiL² Courses take place in cross-cohort groups.
Last update:	August 2026

6.15 Game Arts 2

Module Code:	BA.013.1
Module Title:	Game Arts 2
Type of Module:	Elective
ECTS Credits:	10 ECTS
Language:	English
Duration of Module:	8 Weeks
Recommended for Semester:	4
Frequency:	Annual
Module Coordinator:	Prof. Björn Bartholdy, Prof. Nanette Kaulig
Lecturers:	Prof. Björn Bartholdy (Media Design), Prof. Nanette Kaulig (3D Animation & CG Art for Games)
Learning Outcome:	Students are able to conceptualize and realize visual and sonic elements for games by • practicing drawing, e.g. life drawing • designing characters, environments, objects/props, interfaces, etc. • modelling in a 3D software • creating 3D cinematic animations • customizing voices, characters, and emotions. • exploring experimental audiodriven gameplay and sonic interaction • practicing sound ergonomics and auditory display in order to have the subject-specific skills to create an experimental game in collaboration with Game Designers and Game Programmers.
Module Content:	● Drawing Practice, e.g. life drawing ● Creative Process - Visual Research, Idea Generation, Aesthetic Concept, Concept Art, Presentation ● 3D Modeling - e.g. character creation ● 3D Animation - cinematic, e.g. facial, lipsync, camera ● Sound Design II (a course delivered over three 180-minute sessions, taught jointly with students from other specializations)
Teaching and Learning Methods:	Seminars, Tutorial
Assessment Method:	*Creative Process II* (50% of total module grade) • Presentation (oral/visual) of the developed concept • Written and/or visual documentation, e.g., a pitch video or design dossier *Art and Animation IV* (50% of the total module grade) • 3D Cinematic Animation: A practical exercise is being graded (50% of the total module grade) • Drawing Practice: Best art pieces created in class are being collected as portfolio (pass) • 3D Modeling: A practical exercise is to be created (pass) *Sound Design II* (pass)

	• Assignment (pass)
Workload (25 - 30 h ≙ 1 ECTS credit):	300 hours
Contact hours:	90 hours
Self-study:	210 hours
Recommended Prerequisites:	BA.009.1
Recommended Reading:	Brunet, G. (2018). *Digital painting techniques: Practical techniques of digital art masters*. 3DTotal Publishing. Mattesi, M. (2017). *FORCE: Dynamic life drawing*. CRC Press. Morris, D. (2012). *Peoplewatching: The Desmond Morris guide to body language*. Vintage Digital. Rogers, Y., Sharp, H., & Preece, J. (2019). *Interaction design: Beyond human-computer interaction* (5th ed.). Wiley. White, T. (2006). *Animation from pencils to pixels: Classical techniques for digital animators*. Focal Press.
Use of the Module in Other Degree Programs:	…
Particularities:	…
Last update:	August 2026

6.16 Game Design 2

Module Code:	BA.013.2
Module Title:	Game Design 2
Type of Module:	Elective
ECTS Credits:	10 ECTS
Language:	English
Duration of Module:	8 Weeks
Recommended for Semester:	4
Frequency:	Annual
Module Coordinator:	Prof. Dr. Emmanuel Guardiola, Prof. Dr. Greta Hoffmann
Lecturers:	Prof. Dr. Emmanuel Guardiola (Game Design), Prof. Dr. Greta Hoffmann (Game Design)
Learning Outcome:	Students will be able to • employ means to realize an intention – by identifying the mise-en-scene, i.e. the articulation between intention and means (e.g. signs and feedback, camera, genre, theme-specific mechanics) • structurally approach world building processes. • understand and work within connecting disciplines and subforms of play (UX design, puzzle design, pervasive games, experimental games) • apply experimental narrative meta patterns (curves, plot-points, constellations, tension) in order to have the subject-specific skills to create an experimental game in collaboration with Game Programmers and Game Artists.
Module Content:	● Introduction to the design of new forms of games and interactivity (inter alia transmedia, pervasive games, ubiquitous games); e.g. use the ordinary life as game element ● Analysis of the mise-en-scène of games and practice of specific means (e.g. signs and feedback, actor direction)

	● Overview of connecting topics, for example UX Design, Puzzle Design, Alternate Reality Games (Real world massive multiplayer structures) ● Introduction to fundamental principles of narrative patterns: Curves, Plot Points, Suspense ● Sound Design II (a course delivered over three 180-minute sessions, taught jointly with students from other specializations)
Teaching and Learning Methods:	Lecture, seminar, tutorial, practical exercises
Assessment Method:	Two of three Game Design courses have assignments that are graded (they consist of 50% each of the total grade), any other assignment will be pass/fail. Project assignment: Hand-in with structured documentation of class and homework tasks - individual submission. Presentations of assigned topics: individual assignment. In addition, there is a pass/fail assignment in Sound Design II, taught jointly with students from other specializations.
Workload (25 - 30 h ≙ 1 ECTS credit):	300 hours
Contact hours:	90 hours
Self-study:	210 hours
Recommended Prerequisites:	BA.009.2
Recommended Reading:	*Meta-Narrative-Patterns* Alison, J. (2019). *Meander, spiral, explode: Design and pattern in narrative*. Catapult.
Use of the Module in Other Degree Programs:	…
Particularities:	…
Last update:	August 2026

6.17 Game Programming 2

Module Code:	BA.013.3
Module Title:	Game Programming 2
Type of Module:	Elective
ECTS Credits:	10 ECTS
Language:	English
Duration of Module:	8 Weeks
Recommended for Semester:	4
Frequency:	Annual
Module Coordinator:	Prof. Dr. Roland Klemke, Prof. Dr. Jonas Zimmer
Lecturers:	Prof. Dr. Roland Klemke (Game Informatics), Prof. Dr. Jonas Zimmer (Game Informatics)
Learning Outcome:	Students are able design and implement core technical systems of digital games on a basic level by • applying established game programming patterns • implementing procedural generation methods • defining rulesets for procedural generation algorithms • integrating sensor and actuator data into interactive applications across embedded systems

	in order to develop the subject-specific skills required to build, connect, and reason about game systems across software and hardware contexts.
Module Content:	1) Game Programming IV: Introduction to game programming patterns and their practical implementation in C++. 2) Procedural Content Generation: Procedural generation techniques for multiple domains (e.g. levels, environments, or narrative structures), including rule design and control over generative outcomes. 3) Hardware Programming: Integration of sensors and actuators into interactive systems, including data acquisition, signal processing, and communication between embedded platforms (e.g. microcontrollers and host systems). 4) Sound Design II (a course delivered over three 180-minute sessions, taught jointly with students from other specializations)
Teaching and Learning Methods:	Lecture, seminar, tutorial, practical exercises
Assessment Method:	1) Game Programming IV: Graded Homework (30%) 2) Procedural Content Generation: Practical Exercise (70%) 3) Hardware Programming: Course Work (Pass) 4) Sound Design II: Assignment (Pass)
Workload (25 - 30 h ≙ 1 ECTS credit):	300 hours
Contact hours:	90 hours
Self-study:	210 hours
Recommended Prerequisites:	BA.009.3
Recommended Reading:	*Game Programming Patterns* Gamma, E., Helm, R., Johnson, R., & Vlissides, J. (1994). *Design patterns: Elements of reusable object-oriented software*. Pearson. Nystrom, R. (2014). *Game programming patterns*. Genever Benning. *Procedural Content Generation* Shaker, N., Togelius, J., & Nelson, M. J. (2018). *Procedural content generation in games*. Springer International Publishing.
Use of the Module in Other Degree Programs:	…
Particularities:	…
Last update:	August 2026

6.18 Media & Game Studies 4

Module Code:	BA.014
Module Title:	Media & Game Studies 4
Type of Module:	Mandatory Module
ECTS Credits:	5 ECTS
Language:	English
Duration of Module:	8 Weeks
Recommended for Semester:	4
Frequency:	Annual
Module Coordinator:	Prof. Dr. Sonia Fizek

Lecturers:	Prof. Dr. Sonia Fizek (Media & Game Studies), Prof. Odile Limpach (Economics & Entrepreneurship for Games).
Learning Outcome:	*Overarching Learning Outcome* Students develop an understanding of game development as a socio-cultural, organizational, and ethical practice through engagement with theories of media, labor, and management, in order to situate their own work within broader production, institutional, and societal contexts. *Media & Game Studies* The students are enabled to critically evaluate aspects of the creative and technical practice of game development by: • studying selected aspects of the history of computing and video games, • reflecting the ethical questions behind development practices, • learning about the affordances and cultural-historical impact of technological tools on the creative practice, • studying the social aspects of game development (game developer ethnographies and production studies). As a result, the students can situate their own creative and technical practice within a broader historical, cultural and ethical landscape of digital production studies. *Economics & Entrepreneurship* The students can create a market research strategy for a game project by analyzing the research topics and proposing the most appropriate tools, identifying and analyzing the brand pillars of known digital games, examining the different parts of a communication strategy, practicing the writing of a press release document to be able to create, apply and support the analysis and positioning on the market of the future videogame projects they will work on, and to create and contribute to new intellectual property developments. The students understand the basics of distribution agreements and practice negotiation skills. The students reflect on different forms of company organization. The students find out and discuss the requirements for leadership, team building and goals settings.
Module Content:	The module *Media and Game Studies 4* investigates by whom and in which systems games are made, with focus on theories and ethical issues related to running a studio, working with people, as well as perceiving the practice of development and the practice of managing a business within a wider cultural and ethical context, supported by theories “on the ground”, which enable the students to apply knowledge into potential practice of running their own game studios. *Media & Game Studies* • History and theories of modern computing, digital networking, history and theories of the public sphere, history and practices of audience building. • Ethical questions related to the game development practices and development tools, both embedded within larger cultural and technological structures, e.g., environmental sustainability, energy efficiency of tools and development practices, running an ecologically-friendly studio, EU regulations and policies on the environmental issues within the creative industries, the role of AI within the creative pipeline, amongst others. • Questions related to workers’ rights and cooperative models within the creative practice of game development, e.g., unionization, flat work hierarchies, social sustainability within workplace, diversity, amongst others. *Economics & Entrepreneurship* • Theories of organizations, theories of management, theories and practice of marketing research, brand building, regulation, and politics • Introduction into negotiation strategies • Goal Setting and management basics
Teaching and Learning Methods:	Lecture, seminar, practical exercises
Assessment Method:	Oral Presentation (e.g., academic podcast) in Media & Game Studies (70%); Oral Presentation in Economics and Entrepreneurship with written support (30%)
Workload (25 - 30 h ≙ 1 ECTS credit):	150 hours

Contact hours:	39 hours
Self-study:	111 hours
Recommended Prerequisites:	BA.010
Recommended Reading:	*Media & Game Studies* Fizek, S., et al. (2025). *Green transition at play: State of the art report on the environmental and social sustainability of video and board game industries*. Horizon Europe Project STRATEGIES. https://www.strategieshorizon.eu Greicius, A. (2016). When computers were human. *NASA*. https://www.nasa.gov/centers-and-facilities/jpl/when-computers-were-human Hollings, C., Martin, U., & Rice, A. (2018). Ada Lovelace and the analytical engine. *Bodleian Libraries*. https://blogs.bodleian.ox.ac.uk/adalovelace/2018/07/26/ada-lovelace-and-the-analytical-engine Licklider, J. C. R. (1960). Man-computer symbiosis. *Transactions on Human Factors in Electronics*. Ruffino, P. (2022). Workers' visibility and union organizing in the UK videogames industry. *Critical Studies in Media Communication, 39*, 15–28. Werning, S. (2021). *Making games: The politics and poetics of game creation tools*. MIT Press. Zuboff, S. (2019). Surveillance capitalism is an assault on human autonomy. *The Guardian*. *Economics & Entrepreneurship* Schmidt, G. (2022). *Game design impossible: The drama of game development*. Sinek, S. (2011). *Start with why: How great leaders inspire everyone to take action*. https://www2.deloitte.com/us/en/insights/industry/technology/digital-media-trends-consumption-habits-survey/summary.html https://www.youtube.com/watch?v=ala1XYmWp3g https://www.youtube.com/watch?v=4eIDBV4Mpek https://www.gamedeveloper.com/business/how-to-learn-who-your-audience-is https://openstax.org/books/principles-marketing/pages/6-3-steps-in-a-successful-marketing-research-plan https://review.firstround.com/a-managers-guide-to-helping-teams-face-down-uncertainty,-burnout-and-perfectionism#tip-1-look-for-the-warning-signs https://www.youtube.com/watch?v=nHWvUmlzamo https://www.linkedin.com/posts/simon-sinek_how-do-we-create-an-environment-in-which-activity-7053769160438247424-7jxI/?utm_source=share&utm_medium=member_android https://openstax.org/books/organizational-behavior/pages/16-1-organizational-structures-and-design
Use of the Module in Other Degree Programs:	…
Particularities:	…
Last update:	August 2026

6.19 Collaborative Project 4 (Experimental Games)

Module Code:	BA.015
Module Title:	Collaborative Project 4 (Experimental Games)
Type of Module:	Mandatory Module
ECTS Credits:	10 ECTS
Language:	English
Duration of Module:	8 Weeks
Recommended for Semester:	4
Frequency:	Annual

Module Coordinator:	Prof. Dr. Jonas Zimmer
Lecturers:	Prof. Björn Bartholdy (Media Design), Prof. Dr. Sonia Fizek (Media & Game Studies), Prof. Dr. Emmanuel Guardiola (Game Design), Prof. Dr. Greta Hoffmann (Game Design), Prof. Nanette Kaulig (3D Animation & CG Art for Games), Prof. Dr. Roland Klemke (Game Informatics), Prof. Odile Limpach (Economics & Entrepreneurship for Games), Prof. Dr. Jonas Zimmer (Game Informatics).
Learning Outcome:	Students are able to critically reflect established strategies, genre conventions and visualizations in game development by • question existing strategies, established procedures and previously acquired skills and abilities • experimenting with the different phases of the game development process • creatively sharing complementary tasks in interdisciplinary teams in order to develop a unique, experimental game together with team members from other disciplines.
Module Content:	● Pre-production: high concept, pitching, concept, concept art, game design document, prototyping, testing; ● Production: game design, game arts (character & world design, animation, interface, sound design), programming/game informatics, level design; ● Post-production: documentation, post-mortem, publication, external pitching/communication. ● Project management: team communication, organizational theories, risk assessment, management of large teams.
Teaching and Learning Methods:	Project work, seminar, individual and group mentoring
Assessment Method:	Group Assessment (50%) • Intermediate Presentation (pass) • Final Presentation (pass) • Game Project (playable prototype) in regards to overall quality, originality and relevance to theme “Experimental Game” (50%) Individual Assessment (50%) • documentation (text, visuals) of own work and workflow in TH Spaces
Workload (25 - 30 h ≙ 1 ECTS credit):	300 hours
Contact hours:	30 hours
Self-study:	270 hours
Recommended Prerequisites:	None
Recommended Reading:	Salen, K., & Zimmerman, E. (2003). *Rules of play: Game design fundamentals*. MIT Press.
Use of the Module in Other Degree Programs:	…
Particularities:	…
Last update:	August 2026

6.20 Reflection & Community 4

Module Code:	BA.016
Module Title:	Reflection & Community
Type of Module:	Mandatory Module
ECTS Credits:	5 ECTS

Language:	English
Duration of Module:	16 Weeks
Recommended for Semester:	4
Frequency:	Annual
Module Coordinator:	Dr. André Czauderna
Lecturers:	Varies by semester
Learning Outcome:	Students are able to analyze their own professional practice; synthesize perspectives from diverse fields both inside and outside game development; and apply key skills – such as self-reliance, organization, teamwork, and communication – by reflecting on their artistic and professional growth, evaluating various academic and industry viewpoints, and contributing to game-related, community-oriented, and broader interdisciplinary cross-cohort projects. As a result, they are intellectually, psychologically, and socially prepared for interdisciplinary and intercultural teamwork in the evolving 21st-century labor market, within and beyond the games industry.
Module Content:	1) Work Groups: In these cross-cohort, multi-semester groups – each accompanied by a faculty or staff mentor – students actively contribute to CGL's unique culture and community. Among other activities, the groups support CGL's initiatives in areas such as applied and artistic research, course guidance, communication, events, mental health, publishing (Broken Paternoster Games), student life, and tech service & development. 2) Individual and Group Mentoring: with a main focus on student artistic and professional development in their respective area of specialization (Game Arts, Game Design, or Game Programming). 3) Profile² Week: During this workshop week, students can choose a highly specialized, interdisciplinary, and/or project-oriented course. 4) Guest Lectures: 4 to 6 guest lectures offering a variety of perspectives from both game development and game studies.
Teaching and Learning Methods:	Lecture, seminar, group work, individual and group mentoring
Assessment Method:	Mandatory attendance and proof of achievement in Work Groups and Profile² Week
Workload (25 - 30 h ≙ 1 ECTS credit):	150 hours
Contact hours:	60 hours
Self-study:	90 hours
Required Prerequisites:	Mandatory attendance in the sub-modules Work Groups and Profile² Week
Recommended Reading:	None
Use of the Module in Other Degree Programs:	Parts of the module, i.e., the Guest Lectures and Profil² Courses, are open to all CGL students.
Particularities:	Guest Lectures, Work Groups, and ProfiL² Courses take place in cross-cohort groups.
Last update:	August 2026

6.21 Exchange & Practice: Internship

Module Code:	BA.017.1
Module Title:	Exchange & Practice: Internship
Type of Module:	Elective Module
ECTS Credits:	25 ECTS

Language:	English
Duration of Module:	17 Weeks
Recommended for Semester:	5
Frequency:	Annual
Module Coordinator:	Dr. André Czauderna
Lecturers:	-
Learning Outcome:	Students are able to co-create games in a real-world industry setting, evaluate practical work flows, and apply their soft skills (e.g. communication, organization, time management, etc.) by testing and strengthening their newly acquired knowledge and skills in a professional working environment within the game industry (AAA Company, Indie Game Developer, Serious Game Studio, etc.) or a related (creative) industry in order to improve their employability.
Module Content:	Internship of at least 600 hours at a game development studio (or at another game-related company)
Teaching and Learning Methods:	Internship
Assessment Method:	Internship
Workload (25 - 30 h ≙ 1 ECTS credit):	750 hours
Contact hours:	n/a
Self-study:	n/a
Recommended Prerequisites:	BA.013, BA.014, BA.015
Recommended Reading:	None
Use of the Module in Other Degree Programs:	…
Particularities:	In the fifth semester, students may choose between three compulsory elective modules: Internship (BA.017.1), Exchange Semester (BA.017.2), and Self-Initiated Project (BA.017.3). The internship length has to comprise of at least 600 hours and cannot be longer than one semester. Internships can be done within the game industry (AAA Company, Indie Game Developer, Serious Game Studio, etc.), but also within a related (creative) industry or a relevant field in another industry. Each student choosing the internship option has to find a mentoring professor who accepts their proposal (i.e., topic and details of company and details of internship) and in turn agrees to mentor them throughout the semester. The registration deadline is August 31. A form can be found in Spaces. In the beginning of their practice semester, students must also register via PSSO. Parallel to their industry work, all students are required to document their learning processes through regular blog posts in Spaces. The scope of this requirement will be announced by the module coordinator at the beginning of the winter semester (September 1) by email. In the first week of the following summer semester, students will give a 10 min presentation on their internship to the CGL community, including in particular the upcoming generation of peers (exchange and practice presentation). More information on the internship semester as well as the registration form can be found in Spaces. BA.017 must be studied in combination with BA.018.
Last update:	August 2026

6.22 Exchange & Practice: Exchange Semester

Module Code:	BA.017.2
Module Title:	Exchange & Practice: Exchange Semester
Type of Module:	Elective Module
ECTS Credits:	25 ECTS
Language:	English
Duration of Module:	17 Weeks
Recommended for Semester:	5
Frequency:	Annual
Module Coordinator:	Prof. Nanette Kaulig, Dr. André Czauderna
Lecturers:	Instructors of the host university
Learning Outcome:	Students deepen their expertise in a particular area and/or broaden their academic/cultural perspective by studying either in another game program or a discipline/field relevant to game development (such as Computer Science, Interaction Design, Digital Arts, Film Studies, Art History, Media Education, Psychology, etc.) in order to improve their employability and grow as a personality.
Module Content:	Areas of study relevant to game development (such as Game Arts, Game Design, Game Programming, Game Studies, Digital Arts, Film Studies, Interaction Design, Media Education, Media Economics, etc.)
Teaching and Learning Methods:	Depends on courses offered at the university abroad
Assessment Method:	Depends on courses offered at the university abroad
Workload (25 - 30 h ≙ 1 ECTS credit):	750 hours
Contact hours:	n/a
Self-study:	n/a
Recommended Prerequisites:	BA.013, BA.014, BA.015
Recommended Reading:	None
Use of the Module in Other Degree Programs:	…
Particularities:	In the fifth semester, students may choose between three compulsory elective modules: Internship (BA.017.1), Exchange Semester (BA.017.2), and Self-Initiated Project (BA.017.3). Parallel to their course work all students are required to document their learning processes through regular blog posts in Spaces. The scope of this requirement will be announced by the module coordinators at the beginning of the winter semester (September 1) by email. In the first week of the following summer semester, students will give a 10 min presentation on their exchange semester to the CGL community, including in particular the upcoming generation (exchange and practice presentation). More information on the internship semester (including CGL's partner universities) can be found in Spaces. An info event on the exchange option of semester 5 is always offered at the end of the winter term when students are still in their third semester (this is typically in late-January). CGL's internal application procedure then takes place in the semester break prior to the summer term. Afterwards, early in the summer term, nominated students can apply to partner universities and Erasmus scholarships. In addition, at the beginning of their exchange semester, students also have to register at TH Köln via PSSO. BA.017 must be studied in combination with BA.018.

Last update:	August 2026

6.23 Exchange & Practice: Self-Initiated Project

Module Code:	BA.017.3
Module Title:	Exchange & Practice: Self-Initiated Project
Type of Module:	Elective Module
ECTS Credits:	25 ECTS
Language:	English
Duration of Module:	17 Weeks
Recommended for Semester:	5
Frequency:	Annual
Module Coordinator:	Prof. Dr. Roland Klemke
Lecturers:	Prof. Dr. Roland Klemke
Learning Outcome:	Students are able to create games with publication potential, which could possibly be pitched to a publisher or on a crowdfunding website or be submitted for public funding by developing a game individually or collaboratively; evaluating practical work flows and applying their soft skills (e.g. communication, organization, time management, etc.); adapting their abilities to the necessities of a self-organized game project; applying project management skills as well as soft skills, particularly communication, teamwork, organization, time management, etc.; initiating and realizing a comprehensive project in order to improve their employability, entrepreneurial spirit, and creative personality.
Module Content:	Self-initiated collaborative or individual development of a digital game (or another relevant game-related piece of work) with publication potential over the period of one semester As an alternative to game development projects, students might pursue other game-related projects, such as animation or research projects (leading to potentially publishable work). Under certain circumstances, students may be granted with the opportunity to work on a series of portfolio pieces. The latter is, in particular, catered to Game Arts students and requires close supervision and confirmation of a professor in the particular specialization.
Teaching and Learning Methods:	Learning by doing, mentoring, colloquium
Assessment Method:	Project work, presentations
Workload (25 - 30 h ≙ 1 ECTS credit):	750 hours
Contact hours:	30 hours
Self-study:	720 hours
Recommended Prerequisites:	BA.013, BA.014, BA.015
Recommended Reading:	None
Use of the Module in Other Degree Programs:	…
Particularities:	In the fifth semester, students may choose between three compulsory elective modules: Internship (BA.017.1), Exchange Semester (BA.017.2), and Self-Initiated Project (BA.017.3). Each student choosing the self-initiated project option has to find a mentoring professor who accepts their proposal and in turn agrees to mentor them throughout the semester. The registration deadline is August 31. A form can be found in Spaces. In the beginning of their practice semester, students also have to register via PSSO.

	Parallel to their project work, all students are required to present and discuss their progress in a colloquium (which takes place circa 4 times per semester) as well as to document their learning processes through regular blog posts in Spaces. The scope of the requirements will be announced by the module coordinator at the beginning of the winter semester (September 1) by syllabus. In the first week of the following summer semester, students will give a 10 min presentation on their self-initiated project to the CGL community, including in particular the upcoming generation (exchange and practice presentation). More information on the self-initiated project as well as the registration form can be found in Spaces. BA.017 must be studied in combination with BA.018.
Last update:	August 2026

6.24 Reflection & Community 5

Module Code:	BA.018
Module Title:	Reflection & Community 5
Type of Module:	Mandatory Module
ECTS Credits:	5 ECTS
Language:	English
Duration of Module:	17 Weeks
Recommended for Semester:	5
Frequency:	Annual
Module Coordinator:	Dr. André Czauderna
Lecturers:	…
Learning Outcome:	Students are able to critically analyze their own personal and professional development (including an evaluation of their own strengths and weaknesses) by reflecting on their cultural and professional experiences from their exchange and practice semester in order to be able to identify areas they could improve on in forthcoming semesters as well as future professional practice.
Module Content:	● Individual and group mentoring focusing on students' experiences during their exchange and practice semester ● Documentation of their learning processes through regular blog writing in Spaces ● Final exchange and practice presentation; in which students should demonstrate structured and deep reflection on their individual experiences
Teaching and Learning Methods:	Individual and group mentoring (partly through long distance communication), journal and blog writing, presentation
Assessment Method:	Documentation (to be delivered in form of blog posts), presentation
Workload (25 - 30 h ≙ 1 ECTS credit):	150 hours
Contact hours:	10 hours
Self-study:	140 hours
Recommended Prerequisites:	BA.013, BA.014, BA.015 (The examination board decides on any exceptions.)

Recommended Reading:	None
Use of the Module in Other Degree Programs:	…
Particularities:	Study of BA.018 has to be combined with BA.017 (1, 2 or 3).
Last update:	August 2026

6.25 Game Arts 3

Module Code:	BA.019.1
Module Title:	Game Arts 3
Type of Module:	Elective
ECTS Credits:	10 ECTS
Language:	English
Duration of Module:	8 Weeks
Recommended for Semester:	6
Frequency:	Annual
Module Coordinator:	Prof. Björn Bartholdy, Prof. Nanette Kaulig
Lecturers:	Prof. Björn Bartholdy (Media Design), Prof. Nanette Kaulig (3D Animation & CG Art for Games)
Learning Outcome:	Students are able to conceptualize and realize visual and sonic elements for games on an advanced level by • designing characters, environments, objects/props, interfaces, etc. • developing a 2D and/or 3D art group project with a focus on audiovisual design • enhancing their ability for sound characterization • strengthening their ability to reflect and discuss audio perspective • practicing advanced audio implementation in order to have the subject-specific skills to design and implement all required components for any kind of digital game.
Module Content:	● Creative Process – Visual Research, Idea Generation, Aesthetic Concept, Concept Art, Presentation ● 2D and/or 3D art group project creation with a focus on audiovisual design ● Music in Games III – Talking about Music (a course delivered over three 180-minute sessions, taught jointly with students from other specializations)
Teaching and Learning Methods:	Seminars, tutorial
Assessment Method:	*Creative Process I* (50% of total module grade) • Presentation (oral/visual) of the developed concept • Written and/or visual documentation, e.g., a pitch video or design dossier *Art and Animation V* (50% of the total module grade) • 2D/3D Art and Sound Collaborative Project Creation of a practical art group exercise with an audio focus *Music in Games III* • Assignment (pass)
Workload (25 - 30 h ≙ 1 ECTS credit):	300 hours
Contact hours:	90 hours

Self-study:	210 hours
Recommended Prerequisites:	BA.013.1
Recommended Reading:	Edwards, B. (2012). *Drawing on the right side of the brain* (4th ed.). TarcherPerigee. Hooks, E. (2017). *Acting for animators* (4th ed.). Routledge. Johnston, O., & Thomas, F. (1995). *The illusion of life: Disney animation*. Hyperion. Tickoo, S. (2024). *Autodesk Maya 2025: A comprehensive guide* (16th ed.). CADCIM Technologies.
Use of the Module in Other Degree Programs:	…
Particularities:	…
Last update:	August 2026

6.26 Game Design 3

Module Code:	BA.019.2
Module Title:	Game Design 3
Type of Module:	Elective
ECTS Credits:	10 ECTS
Language:	English
Duration of Module:	8 Weeks
Recommended for Semester:	6
Frequency:	Annual
Module Coordinator:	Prof. Dr. Emmanuel Guardiola, Prof. Dr. Greta Hoffmann
Lecturers:	Prof. Dr. Emmanuel Guardiola (Game Design), Prof. Dr. Greta Hoffmann (Game Design)
Learning Outcome:	Students are able • to manage player models including the ones related to basic and advanced emotions • to conceptualize and realize an impact game • to take abstract concepts from the real world and translate them into metaphorically sound gameplay • understand and apply advanced narrative and world building tools to engage players emotionally • apply their understanding the meta layer of game design to abstract, higher-level concepts (power, control, integration).
Module Content:	● Introduction to impact game design, for instance, game for health and education ● How to model the player, in particular the emotional experience ● How to engage players emotionally by combining dramatic elements with abstract gameplay ● Understand grand concepts like migration/integration, power-dynamics, broader systems and translate them into gameplay. ● Practicing player-centered approaches in the area of e.g. health games, educational games, etc. ● Music in Games III – Talking about Music (a course delivered over three 180-minute sessions, taught jointly with students from other specializations)
Teaching and Learning Methods:	Lecture, seminar, tutorial, practical exercises
Assessment Method:	Two of three Game Design courses have assignments that are graded (they consist of 50% each of the total grade), any other assignment will be pass/fail.

	Project assignment: Hand-in with structured documentation of class and homework tasks - individual submission. Presentations of assigned topics: individual assignment. In addition, there is a pass/fail assignment in Music in Games III, taught jointly with students from other specializations.
Workload (25 - 30 h ≙ 1 ECTS credit):	300 hours
Contact hours:	90 hours
Self-study:	210 hours
Recommended Prerequisites:	BA.013.2
Recommended Reading:	*The Game of Language* Aitchison, J. (1976). *The articulate mammal: An introduction to psycholinguistics*. Routledge. Diamond, J. (1992). *The third chimpanzee: The evolution and future of the human animal*. HarperCollins. Fortson, B. W., IV. (2004). *Indo-European language and culture: An introduction*. Blackwell Publishing. Okrent, A. (2009). *In the land of invented languages*. Spiegel & Grau. Wittgenstein, L. (1953). *Philosophical investigations* (G. E. M. Anscombe, Trans.). Blackwell Publishing.
Use of the Module in Other Degree Programs:	…
Particularities:	…
Last update:	August 2026

6.27 Game Programming 3

Module Code:	BA.019.3
Module Title:	Game Programming 3
Type of Module:	Elective
ECTS Credits:	10 ECTS
Language:	English
Duration of Module:	8 Weeks
Recommended for Semester:	6
Frequency:	Annual
Module Coordinator:	Prof. Dr. Roland Klemke, Prof. Dr. Jonas Zimmer
Lecturers:	Prof. Dr. Roland Klemke (Game Informatics), Prof. Dr. Jonas Zimmer (Game Informatics)
Learning Outcome:	Students are able to design and implement real-time systems for generating, simulating, and visualizing game elements by • generating and manipulating 3D geometry at runtime • applying rendering pipelines and shader programming • implementing fundamental physics simulations in order to shape the look and feel of a game of interactive systems from a technical perspective. Students are able to conduct applied technical research by • describing an applied solution to a given problem

	• researching theories and implementations • assessing the quality of a solution in order to convey technical information by writing a scientific paper.
Module Content:	1) Game Programming V: Introduction to real-time rendering, including 3D mesh data structures, runtime geometry generation, the graphics pipeline, and shader programming. 2) Game Physics Programming: Introduction to physics programming. Implementation of fundamental simulations of reflection, collision and forces. 3) Technical Paper Writing: Applied lecture on the process of writing a technical paper. Exercising the preparation steps. 4) Music in Games III – Talking about Music (a course delivered over three 180-minute sessions, taught jointly with students from other specializations)
Teaching and Learning Methods:	Lecture, seminar, tutorial, practical exercises
Assessment Method:	1) Game Programming V: Practical Exercise or Presentations (70%) 2) Game Physics Programming: Course Work (Pass) 3) Technical Paper Writing: Written Essay (30%) 4) Music in Games III: Assignment (Pass)
Workload (25 - 30 h ≙ 1 ECTS credit):	300 hours
Contact hours:	90 hours
Self-study:	210 hours
Recommended Prerequisites:	BA.013.3
Recommended Reading:	Akenine-Möller, T., Haines, E., & Hoffman, N. (2018). *Real-time rendering* (4th ed.). CRC Press. Millington, I. (2010). *Game physics engine development: How to build a robust commercial-grade physics engine for your game* (2nd ed.). Focal Press. *Technical Paper Writing* Lindsell-Roberts, S. (2023). *Technical writing for dummies*. John Wiley & Sons. Nelson, P. L. (1989). The technical writing of scientific papers. *American Journal of EEG Technology, 29*(2), 165–174.
Use of the Module in Other Degree Programs:	…
Particularities:	…
Last update:	August 2026

6.28 Media & Game Studies 5

Module Code:	BA.020
Module Title:	Media & Game Studies 5
Type of Module:	Mandatory Module
ECTS Credits:	7 ECTS
Language:	English
Duration of Module:	24 Weeks
Recommended for Semester:	6
Frequency:	Annual
Module Coordinator:	Prof. Dr. Sonia Fizek

Lecturers:	Lecturers: Prof. Dr. Sonia Fizek (Media & Game Studies), Prof. Odile Limpach (Economics & Entrepreneurship for Games).
Learning Outcome:	*Media & Game Studies* The students are enabled to evaluate problems and questions arising in the context of their BA projects from the multidisciplinary perspectives of media history and theory and other related disciplines relevant to game studies, independently analyze their own creative work from the perspective of media and game studies and contextualize it within relevant theories, by • studying central points of discussion in contemporary Game Studies, • learning about the interdisciplinary research methods in contemporary Game Studies, • participating in seminar discussions to strengthen academic thinking, research and writing skills, • studying relevant literature. As a result, students are adequately prepared to research and write original academic works, especially their upcoming bachelor thesis, and to apply concepts and theories of Game Studies to the theory and production of digital games, and develop an awareness of the developments in these fields as they become increasingly culturally relevant and of importance to video game development. *Economics & Entrepreneurship* • The students consider current business models and distribution trends and reflect on publishing strategies for videogame, in order to be prepared to release a game. • They can read a profit and loss analysis and know the main sources of financing for digital games, to be able to launch economic viable projects in the future. • The students understand behavioral economics, also in the computer games market, in order to reflect on their future monetization strategies. • The students are reflecting on project organization and are able to apply a risk assessment methodology to their future game projects.
Module Content:	The module *Media and Games Studies 6* prepares the students for the final stage in their studies, the BA phase in their seventh semester. The research methods and theoretical frameworks explored in the Media & Game Studies seminars directly sharpen the economic thinking developed in the Economics & Entrepreneurship seminars. Understanding how and why players make choices, what cultural and psychological forces drive engagement, gives students the conceptual grounding to critically evaluate monetization strategies and distribution decisions rather than simply applying them mechanically. Together, the two seminars prepare students to act as reflective practitioners: researchers who can think economically, and entrepreneurs who can think critically. *Media & Game Studies* • New points of discussion in contemporary game studies theoretical reflection of questions and problems arising in the context of student BA projects • Interdisciplinary perspectives on games and game-related research methods (inter alia: media theory, media archeology, narrative theories, hermeneutic analysis, ethnographic research, practice-led research, qualitative data analysis, basics of quantitative data analysis) *Economics & Entrepreneurship* • Publishing and financing strategies, cash flow planning • Behavioral economics • Presentation and discussion of the theoretical framework of student BA theses
Teaching and Learning Methods:	Seminar, presentations, practical exercises
Assessment Method:	Term Paper
Workload (25 - 30 h ≙ 1 ECTS credit):	210 hours
Contact hours:	39 hours
Self-study:	171 hours

Recommended Prerequisites:	BA.014
Recommended Reading:	*Media & Game Studies* Arjoranta, J. (2022). How are games interpreted? Hermeneutics for game studies. *Game Studies, 22*(3). Boellstorff, T. (2006). A ludicrous discipline? Ethnography and game studies. *Games and Culture, 1*(1), 29–35. https://doi.org/10.1177/1555412005281620 Boellstorff, T., Nardi, B. A., Pearce, C., & Taylor, T. L. (2012). Interviews and virtual worlds research. In *Ethnography and virtual worlds: A handbook of method* (pp. 92–112). Princeton University Press. Fizek, S., & Eggel, R. D. (2025). Game makers against the climate apocalypse: Corporate sustainability, local action, and planetary care in game development. *FROG – Future and Reality of Gaming (Post-conference anthology)*. Flanagan, M. (2006). Critical computer games. In *Critical play: Radical game design* (Chapter 7). MIT Press. Kłosiński, M. (2022). How to interpret digital games? A hermeneutic guide in ten points. *Game Studies, 22*(2). Lelièvre, E. (2020). Research-creation methodology for game research. *HAL Open Science* (HAL-02615671). McGranahan, C. (2018). Ethnography beyond method: The importance of an ethnographic sensibility. *Sites: A Journal of Social Anthropology and Cultural Studies, 15*(1), 1–10. Sicart, M. (2023). Playing software: Homo ludens in computational culture (Chapter 1: Playing, pp. 9–28). MIT Press. *Economics & Entrepreneurship* Keith, C. (2010). Agile game development with Scrum. Limpach, O. (2020). The publishing challenge for independent video game developers: A practical guide. https://www.gamesindustry.biz/the-hidden-costs-of-indie-game-development?mc_cid=136c6e2d70&mc_eid=58461b3a2d https://www.gamesindustry.biz/a-look-at-how-publishers-select-review-and-sign-indie-games?utm_source=newsletter&utm_medium=email&utm_campaign=daily&mc_cid=68ea54ae87&mc_eid=58461b3a2d https://www.gamesindustry.biz/four-things-you-need-to-know-before-raising-money-for-your-game https://www.youtube.com/watch?v=7a2aIUnyEiY&t=798s https://80.lv/articles/pitch-perfect-how-to-prepare-your-game-for-investors-and-publishers/ https://www.youtube.com/watch?v=t5MZhwGgXbk https://hbr.org/2013/06/how-to-give-a-killer-presentation https://www.ted.com/talks/dan_ariely_are_we_in_control_of_our_own_decisions?language=en https://www.youtube.com/watch?v=M0uuDsjy4b0 https://ltpf.ramiismail.com/milestones/
Use of the Module in Other Degree Programs:	…
Particularities:	…
Last update:	August 2026

6.29 Collaborative Project 5 (Impact Games)

Module Code:	BA.021
Module Title:	Collaborative Project 5 (Impact Games)
Type of Module:	Mandatory Module
ECTS Credits:	10 ECTS
Language:	English

Duration of Module:	8 Weeks
Recommended for Semester:	6
Frequency:	Annual
Module Coordinator:	Prof. Dr. Emmanuel Guardiola
Lecturers:	Prof. Björn Bartholdy (Media Design), Prof. Dr. Sonia Fizek (Media & Game Studies), Prof. Dr. Emmanuel Guardiola (Game Design), Prof. Dr. Greta Hoffmann (Game Design), Prof. Nanette Kaulig (3D Animation & CG Art for Games), Prof. Dr. Roland Klemke (Game Informatics), Prof. Odile Limpach (Economics & Entrepreneurship for Games), Prof. Dr. Jonas Zimmer (Game Informatics).
Learning Outcome:	Students are able to create an impact game together with team members of other specializations by recalling knowledge on the game development process – from conception (pitching) and design to production, post-production and presentation; reflecting on games beyond entertainment; analyzing methodologies related to the field of impact (for example instructional strategies and learning theories for educational impact games); researching and applying real world facts and issues to the game development process; applying agile development methods, project management software, and professional documentation; sharing complementary tasks in interdisciplinary teams in order to be prepared for future collaborations in interdisciplinary teams developing games of this genre.
Module Content:	● Preproduction: high concept, pitching, concept, concept art, game design document, prototyping, testing; ● Production: game design, game arts (character & world Design, animation, interface, audio design), programming/game informatics, level design, impact design approach; ● Postproduction: documentation, post-mortem, publication, external pitching/communication. ● Project Management: roles in project execution, leadership and company mission.
Teaching and Learning Methods:	Project work, individual and group mentoring
Assessment Method:	Group Assessment (50%) • Intermediate Presentation (pass) • Final Presentation (pass) • Game Project (playable prototype) in regards to overall quality, originality and relevance to theme “Impact Game” (50%) Individual Assessment (50%) • documentation (text, visuals) of own work and workflow in TH Spaces
Workload (25 - 30 h ≙ 1 ECTS credit):	300 hours
Contact hours:	30 hours
Self-study:	270 hours
Recommended Prerequisites:	None
Recommended Reading:	None
Use of the Module in Other Degree Programs:	…
Particularities:	…
Last update:	August 2026

6.30 Reflection & Community 6

Module Code:	BA.022
Module Title:	Reflection & Community 6
Type of Module:	Mandatory Module
ECTS Credits:	5 ECTS
Language:	English
Duration of Module:	16 Weeks
Recommended for Semester:	6
Frequency:	Annual
Module Coordinator:	Dr. André Czauderna
Lecturers:	Varies by semester
Learning Outcome:	Students are able to analyze their own professional practice; synthesize perspectives from diverse fields both inside and outside game development; and apply key skills – such as self-reliance, organization, teamwork, and communication – by reflecting on their artistic and professional growth, evaluating various academic and industry viewpoints, and contributing to game-related, community-oriented, and broader interdisciplinary cross-cohort projects. As a result, they are intellectually, psychologically, and socially prepared for interdisciplinary and intercultural teamwork in the evolving 21st-century labor market, within and beyond the games industry.
Module Content:	1) Work Groups: In these cross-cohort, multi-semester groups – each accompanied by a faculty or staff mentor – students actively contribute to CGL's unique culture and community. Among other activities, the groups support CGL's initiatives in areas such as applied and artistic research, course guidance, communication, events, mental health, publishing (Broken Paternoster Games), student life, and tech service & development. 2) Individual and Group Mentoring: with a main focus on student artistic and professional development in their respective area of specialization (Game Arts, Game Design, or Game Programming). 3) Profile² Week: During this workshop week, students can choose a highly specialized, interdisciplinary, and/or project-oriented course. 4) Guest Lectures: 4 to 6 guest lectures offering a variety of perspectives from both game development and game studies.
Teaching and Learning Methods:	Lectures, seminars, group work, individual and group mentoring
Assessment Method:	Mandatory attendance and proof of achievement in Work Groups and Profile² Week
Workload (25 - 30 h ≙ 1 ECTS credit):	150 hours
Contact hours:	60 hours
Self-study:	90 hours
Required Prerequisites:	Mandatory attendance in the sub-modules Work Groups and Profile² Week
Recommended Reading:	None
Use of the Module in Other Degree Programs:	Parts of the module, i.e., the Guest Lectures and Profil² Courses, are open to all CGL students.
Particularities:	Guest Lectures, Work Groups, and ProfiL² Courses take place in cross-cohort groups.
Last update:	August 2026

6.31 Game Arts 4

Module Code:	BA.023.1
Module Title:	Game Arts 4
Type of Module:	Elective
ECTS Credits:	6 ECTS
Language:	English
Duration of Module:	12 Weeks
Recommended for Semester:	7
Frequency:	Annual
Module Coordinator:	Prof. Nanette Kaulig
Lecturers:	Prof. Nanette Kaulig (3D Animation & CG Art for Games)
Learning Outcome:	Students are able to reflect on game arts within a general media and arts context by • discussing various approaches and workflows of other fields of art, e.g. fine arts, film, and theater • creating portfolio pieces using their individually preferred art form in order to being able to contextualize their own contributions to the whole game development process.
Module Content:	● Interdisciplinary artistic look on game related fields ● Portfolio Work
Teaching and Learning Methods:	Seminars, Tutorial
Assessment Method:	Art and Animation VI ● Essay on Game Art (pass) ● Creation of a practical, experimental art task with an individual choice of media (100%)
Workload (25 - 30 h ≙ 1 ECTS credit):	180 hours
Contact hours:	36 hours
Self-study:	144 hours
Recommended Prerequisites:	BA.019.1
Recommended Reading:	Dreifuss, R., Hagemann, S., & Pluta, I. (2024). *Live performance and video games*. transcript Verlag. Itten, J. (1970). *The elements of color*. Wiley. Robertson, S., & Bertling, T. (2013). *How to draw: Drawing and sketching objects and environments from your imagination*. Design Studio Press.
Use of the Module in Other Degree Programs:	…
Particularities:	…
Last update:	August 2026

6.32 Game Design 4

Module Code:	BA.023.2
Module Title:	Game Design 4

Type of Module:	Elective
ECTS Credits:	6 ECTS
Language:	English
Duration of Module:	12 Weeks
Recommended for Semester:	7
Frequency:	Annual
Module Coordinator:	Prof. Dr. Emmanuel Guardiola, Prof. Dr. Greta Hoffmann
Lecturers:	Prof. Dr. Emmanuel Guardiola (Game Design), Prof. Dr. Greta Hoffmann (Game Design)
Learning Outcome:	Students are able to • set up a proper research question and methodology • reflect on the current state of game design • find and understand theories from other disciplines and meaningfully relate them to their works in order to be able to design and implement a Bachelor Project as well as to write a Bachelor Thesis.
Module Content:	● Practical answers and solutions to questions and problems arising in the development of student BA projects. ● Introduction of foundational theories from biology, architecture, psychology and economy and relating them back to game design. ● Introduction of language as a game (Wittgenstein).
Teaching and Learning Methods:	Lecture, seminar, tutorial, practical exercises
Assessment Method:	Two of three courses have assignments that are graded (they consist of 50% each of the total grade), any other assignment will be pass/fail. Project assignment: Hand-in with structured documentation of class and homework tasks - individual submission. Presentations of assigned topics: individual assignment.
Workload (25 - 30 h ≙ 1 ECTS credit):	180 hours
Contact hours:	36 hours
Self-study:	144 hours
Recommended Prerequisites:	BA.0019.2
Recommended Reading:	*The Game of Life* Adamatzky, A. (Ed.). (2010). *Game of life cellular automata*. Springer. https://doi.org/10.1007/978-1-84996-217-9 Johnston, N., & Greene, D. (2022). *Conway's Game of Life: Mathematics and construction*. Self-published. Poundstone, W. (1985). *The recursive universe: Cosmic complexity and the limits of scientific knowledge*. Oxford University Press. Wolfram, S. (2002). *A new kind of science*. Wolfram Media.
Use of the Module in Other Degree Programs:	…
Particularities:	…
Last update:	August 2026

6.33 Game Programming 4

Module Code:	BA.023.3
Module Title:	Game Programming 4
Type of Module:	Elective
ECTS Credits:	6 ECTS
Language:	English
Duration of Module:	12 Weeks
Recommended for Semester:	7
Frequency:	Annual
Module Coordinator:	Prof. Dr. Roland Klemke
Lecturers:	Prof. Dr. Roland Klemke (Game Informatics)
Learning Outcome:	Students are able to select, conceptualize, and realize basic approaches of artificial intelligence for games by • applying multi-agent frameworks • implementing movement, navigation, and decision strategies • utilizing basic aspects of general procedural generation • understanding principles of fuzzy logic and utility theory in order to be able to design and implement games delivering advanced user experiences based on artificial intelligence.
Module Content:	● Introduction Game AI ● Basic Agent Model ● Agent Interaction ● Movement / Navigation ● Procedural Generation ● Decisions under Certainty ● Decisions under Uncertainty ● Utility AI / Fuzzy Logic
Teaching and Learning Methods:	Lecture, seminar, tutorial, practical exercises
Assessment Method:	Project (80%) and Presentation (20%)
Workload (25 - 30 h ≙ 1 ECTS credit):	180 hours
Contact hours:	36 hours
Self-study:	144 hours
Recommended Prerequisites:	BA.019.3
Recommended Reading:	Buckland, M. (2005). *Programming game AI by example*. Wordware Game Developer's Library. Millington, I., & Funge, J. (2009). *Artificial intelligence for games* (2nd ed.). Morgan Kaufmann.
Use of the Module in Other Degree Programs:	…
Particularities:	…
Last update:	August 2026

6.34 Bachelor Project

Module Code:	BA.024
Module Title:	Bachelor Project
Type of Module:	Mandatory Module
ECTS Credits:	12
Language:	English
Duration of Module:	17 Weeks
Recommended for Semester:	7 (or 8)
Frequency:	Every Semester
Module Coordinator:	Dr. André Czauderna
Supervisors:	Prof. Björn Bartholdy (Media Design), Prof. Dr. Sonia Fizek (Media & Game Studies), Prof. Dr. Emmanuel Guardiola (Game Design), Prof. Dr. Greta Hoffmann (Game Design), Prof. Nanette Kaulig (3D Animation & CG Art for Games), Prof. Dr. Roland Klemke (Game Informatics), Prof. Odile Limpach (Economics & Entrepreneurship for Games), Prof. Dr. Jonas Zimmer (Game Informatics).
Learning Outcome:	Students are able to synthesize academic and practical work, i.e., create and complete a research and development project, by • using academic sources, • applying scholarly, and scientific methods, • presenting and reflecting their own work adequately in a written thesis, • designing a prototype, game design document, or similar (individually or collaboratively). As a result, the students have the ability to later practice applied research and development in the interdisciplinary field of games.
Module Content:	Depending on the topic and focus of their BA project, students develop a theoretical or empirical approach, design an artistic concept, and realize a prototype. Each BA Project & Thesis consists of the following parts: a) Project (e.g. prototype or Game Design Document and documentation of your project) b) Thesis (i.e., an academic paper). The weight of both parts is suggested by the student (and confirmed by the supervisor and examination board). The smaller part must be at least 20 % of the overall workload. The ratio students decide upon will dictate how the project & thesis are graded. (See examination regulations and CGL BA Project & Thesis Guidelines.)
Teaching and Learning Methods:	Individual work or group work
Assessment Method:	Prototype, thesis
Workload (25 - 30 h ≙ 1 ECTS credit):	360 hours
Contact hours:	-
Self-study:	360 hours
Required Prerequisites:	180 ECTS (The examination board decides on any exceptions.)
Recommended Reading:	*Writing* e.g. Booth, W. C., Colomb, G. G., Williams, J. M., Bizup, J., & FitzGerald, W. T. (2024). *The craft of research* (5th ed.). University of Chicago Press. *Methods* e.g. Lankoski, P., & Björk, S. (Eds.). (2015). *Game research methods: An overview*. ETC Press. https://doi.org/10.1184/R1/6686765

	Mäyrä, F. (2008). Preparing for a game studies project. In *An introduction to game studies: Games in culture* (pp. 152–172). SAGE Publications. *Game Studies* Aarseth, E. (1997). *Cybertext: Perspectives on ergodic literature*. Johns Hopkins University Press. Bogost, I. (2007). *Persuasive games: The expressive power of videogames*. MIT Press. Huizinga, J. (1949). *Homo ludens: A study of the play-element in culture*. Routledge & Kegan Paul. Juul, J. (2005). *Half-real: Video games between real rules and fictional worlds*. MIT Press. Mäyrä, F. (2008). *An introduction to game studies: Games in culture*. SAGE Publications. Salen, K., & Zimmerman, E. (2004). *Rules of play: Game design fundamentals*. MIT Press. Sicart, M. (2011). *The ethics of computer games*. MIT Press.
Use of the Module in Other Degree Programs:	…
Particularities:	An information session on the structure of the Bachelor Project will be offered in the previous summer term, when students are in semester sixth. More information and a registration form can be found in Spaces. BA.024 must be studied in combination with BA.025. Important: Students may begin their BA project at the start of either the winter or summer term. However, those planning to graduate in a summer term must complete their remaining core elective – Game Arts 4, Game Design 4, or Game Programming 4 (approximately 180 minutes per week) – during the preceding winter term (or earlier).
Last update:	August 2026

6.35 Colloquium & Presentation

Module Code:	BA.025
Module Title:	Colloquium & Presentation
Type of Module:	Mandatory Module
ECTS Credits:	5 ECTS
Language:	English
Duration of Module:	17 Weeks
Recommended for Semester:	7 (or 8)
Frequency:	Every Semester
Module Coordinator:	Prof. Odile Limpach (Winter Term) / Prof. Björn Bartholdy (Summer Term)
Supervisors:	Prof. Björn Bartholdy (Media Design), Prof. Dr. Sonia Fizek (Media & Game Studies), Prof. Dr. Emmanuel Guardiola (Game Design), Prof. Dr. Greta Hoffmann (Game Design), Prof. Nanette Kaulig (3D Animation & CG Art for Games), Prof. Dr. Roland Klemke (Game Informatics), Prof. Odile Limpach (Economics & Entrepreneurship for Games), Prof. Dr. Jonas Zimmer (Game Informatics).
Learning Outcome:	Students are able to communicate, evaluate, and iterate upon their academic and professional work, by • presenting and defending their academic and creative work in class; • critically reflecting upon this work; considering feedback of peers and mentors; • narrowing down research questions and development objectives and/or adapting their approaches in consideration of the feedback; • discussing and constructively criticizing the creative and academic work of their peers • to develop the ability to participate actively in academic and professional discourses as well as improving one's own work in light of this discourse.

Module Content:	The Colloquium offers BA students a platform to discuss their work with fellow students who share similar foci as well as get constant feedback from their supervisors. The module is concluded by a presentation (in front of the CGL community) and an oral examination.
Teaching and Learning Methods:	Mentoring, discussion, presentation
Assessment Method:	Oral Presentation (30 minutes) followed by Q&A (up to 30 minutes)
Workload (25 - 30 h ≙ 1 ECTS credit):	150 hours
Contact hours:	30 hours
Self-study:	120 hours
Required Prerequisites:	180 ECTS (The examination board decides on any exceptions.)
Recommended Reading:	None
Use of the Module in Other Degree Programs:	…
Particularities:	BA.025 has to be studied in combination with BA.024.
Last update:	August 2026

6.36 Reflection & Community 7

Module Code:	BA.026
Module Title:	Reflection & Community 7
Type of Module:	Mandatory Module
ECTS Credits:	5 ECTS
Language:	English
Duration of Module:	16 Weeks
Recommended for Semester:	7
Frequency:	Annual
Module Coordinator:	Prof. Björn Bartholdy
Mentors:	Prof. Björn Bartholdy (Media Design), Prof. Dr. Sonia Fizek (Media & Game Studies), Prof. Dr. Emmanuel Guardiola (Game Design), Prof. Dr. Greta Hoffmann (Game Design), Prof. Nanette Kaulig (3D Animation & CG Art for Games), Prof. Dr. Roland Klemke (Game Informatics), Prof. Odile Limpach (Economics & Entrepreneurship for Games), Prof. Dr. Jonas Zimmer (Game Informatics).
Learning Outcome:	Students are able to create a professional portfolio as well as analyze their professional and academic status quo by expanding, improving, discussing their student portfolio; analyzing the labor market; reflecting on their own competencies as well as their expectations and preferences in order to have the ability to make an informed decision about their own professional and/or academic future as well as to apply for jobs, grants, and graduate studies.
Module Content:	Individual and group mentoring with a focus on student portfolios as well as future careers, both professional and academic.
Teaching and Learning Methods:	Individual and group mentoring
Assessment Method:	n/a

Workload (25 - 30 h ≙ 1 ECTS credit):	150 hours
Contact hours:	10 hours
Self-study:	140 hours
Recommended Prerequisites:	None
Recommended Reading:	None
Use of the Module in Other Degree Programs:	…
Particularities:	…
Last update:	August 2026

7 Module Matrix

The module matrix shows all modules of a program and links them to the corresponding fields of activity and competencies of the graduate profile.

As outlined in the criteria for programs at TH Köln, programs distinguish themselves mainly through four criteria: a) Internationalization b) Interdisciplinarity c) Digitalization and d) Transfer.

The module matrix shows which modules contribute to which of the four distinguishing criteria.

Modulmatrix Teil 1: Profil **Studiengang:** BA Digital Games **Fakultät für** Kulturwissenschaften

Letzte Aktualisierung: 30. April 2026 V4 0 | 15.11.2024

Module			ECTS - Punkte		Zuordnung Handlungsfelder			Zuordnung Kompetenzen Absolvent*innenprofil							Zuordnung Studiengangkriterien			
Semester	Modul	Teilmodule	Teilmodul	Gesamt	Developing Games	Communi-cating Games	Gamifying Experiences	General Game Literacy	Special Game Literacy	Academic Competen-cies	Managerial Competen-cies	Collabora-tive Competen-cies	Comuni-cative Comptencies	Personality Development	Global Citizenship	Interntio-nalisierung	Interdis-ziplinarität	Transfer
1	Game Development Basics 1	Game Arts	3	10	x			x								x	x	x
		Game Design	3		x			x								x	x	x
		Game Programming	3		x			x								x	x	x
		Music in Games I	1		x			x								x	x	x
	Media and Game Studies 1	Media & Game Studies	3	5		x				x			x	x		x		
		Economics & Entrepreneurship	2			x				x	x		x			x		
	Collaborative Project 1 (Ludic Games)		10	10	x			x	x		x	x	x			x	x	x
	Reflection & Community 1	Work Groups & Mentoring	3	5			x				x		x	x	x	x	x	x
		Profil2 Week & Guest Lectures	2				x	x		x		x				x	x	x
2	Game Development Basics 2	Game Arts	3	10	x			x								x	x	x
		Game Design	3		x			x								x	x	x
		Game Programming	3		x			x								x	x	x
		Sound Design I	1		x			x								x	x	x
	Media and Game Studies 2	Media & Game Studies	3	5		x				x			x	x		x		
		Economics & Entrepreneurship	2			x				x	x		x			x		
	Collaborative Project 2 (Narrative Games)		10	10	x			x	x		x	x	x			x	x	x
	Reflection & Community 2	Work Groups & Mentoring	3	5			x				x		x	x	x	x	x	x
		Profil2 Week & Guest Lectures	3				x	x		x		x				x	x	x
3	Game Arts 1	Game Arts	3	10	x				x							x		
		Music in Games II	3		x			x								x	x	
	Game Design 1	Game Design	3	10	x				x							x		
		Music in Games II	1		x			x								x	x	
	Game Programming 1	Game Programming	9	10	x				x							x		
		Music in Games II	1		x			x								x	x	
	Media and Game Studies 3	Media & Game Studies	3	5		x				x			x	x		x		
		Economics & Entrepreneurship	2			x				x	x		x			x		
	Collaborative Project 3 (Multiplayer Games)		10	10	x				x		x	x	x			x	x	x
	Reflection & Community 3	Work Groups & Mentoring	3	5			x				x		x	x	x	x	x	x
		Profil2 Week & Guest Lectures	2				x	x		x		x				x	x	x
4	Game Arts 2	Game Arts	9	10	x				x							x		
		Sound Design II	1		x			x								x	x	
	Game Design 2	Game Design	9	10	x				x							x		
		Sound Design II	1		x			x								x	x	
	Game Programming 2	Game Programming	9	10	x				x							x		
		Sound Design II	1		x			x								x	x	
	Media and Game Studies 4	Media & Game Studies	3	10		x				x			x	x		x		
		Economics & Entrepreneurship	2			x				x	x		x			x		
	Collaborative Project 4 (Experimental Games)		10	10	x				x		x	x	x			x	x	x
	Reflection & Community 4	Work Groups & Mentoring	3	5							x		x	x	x	x	x	x
		Profil2 Week & Guest Lectures	2					x		x		x				x	x	x
5	Exchange & Practice: Internship		25	25	x	x	x	x	x			x	x	x		x	x	x
	Exchange & Practice: Exchange Semester		25	25	x	x	x	x	x	x			x	x	x	x	x	x
	Exchange & Practice: Self-Initiated Project		25	25	x	x	x	x	x		(x)	(x)	x	x		x	x	x
	Reflection & Community 5		5	5			x						x	x		x	x	x
6	Game Arts 3	Game Arts	9	10	x				x							x		
		Music in Games III	1		x			x								x	x	
	Game Design 3	Game Design	9	10	x				x							x		
		Music in Games III	1		x			x								x	x	
	Game Programming 3	Game Programming	9	10	x				x							x		
		Music in Games III	1		x			x								x	x	
	Media and Game Studies 5	Media & Game Studies	4	7		x				x			x	x		x		
		Economics & Entrepreneurship	3			x				x	x		x			x		
	Collaborative Project 5 (Impact Games)		10	10	x		x		x		x	x	x		x	x	x	x
	Reflection & Community 6	Work Groups & Mentoring	3	5			x				x		x	x	x	x	x	x
		Profil2 Week & Guest Lectures	2				x	x		x		x				x	x	x
7	Game Arts 4		6	6	x	x			x	x						x		
	Game Design 4		6	6	x	x			x	x						x		
	Game Programming 4		6	6	x	x			x	x						x		
	Bachelor Project		12	12	x	x		x	x	x		(x)				x	x	x
	Colloquium & Presentation		5	5		x		x	x	x			x			x	x	x
	Reflection & Community 7		5	5			x							x	x	x	x	x

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