# Elective Course Description Summer Term 2020

<table>
<thead>
<tr>
<th>Title</th>
<th>For the Love of Pixels: Fantasy Consoles and the Essence of Games</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cluster Title PO 07</td>
<td>To be filed by focus managers s.u.</td>
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<tr>
<td>Cluster Title PO 2012</td>
<td>To be filed by focus managers s.u.</td>
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<tr>
<td>Cluster Title PO 2014</td>
<td>To be filed by focus managers s.u.</td>
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<tr>
<td>Date of first course event / first organizational meeting with students****/ Room</td>
<td>NN</td>
</tr>
<tr>
<td>kind of room if not indicated above</td>
<td>Hörsaal</td>
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Belegung über OBS Mo 19.03.2018 bis Di 27.03.2018, 12.00 Uhr

<table>
<thead>
<tr>
<th>Course Data</th>
<th>credit points</th>
<th>5 credit points</th>
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<tbody>
<tr>
<td>workload/semester</td>
<td>125-150 h</td>
<td></td>
</tr>
<tr>
<td>presence/week on average**</td>
<td>4 SWS</td>
<td></td>
</tr>
<tr>
<td>Group size according to cnw</td>
<td>Min. size 8 students</td>
<td></td>
</tr>
<tr>
<td>09.04. – 23.06.20</td>
<td></td>
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<table>
<thead>
<tr>
<th>weekday of course</th>
<th>&lt;friday</th>
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<tbody>
<tr>
<td>frequency of course-events</td>
<td>weekly</td>
</tr>
<tr>
<td>prospective timeframe**** (Block = 90 min)</td>
<td>Block 1 8:30</td>
</tr>
<tr>
<td>course language</td>
<td>English</td>
</tr>
<tr>
<td>suitable for students of course/focus</td>
<td>DM</td>
</tr>
<tr>
<td>OJ/WJ/OK</td>
<td>I</td>
</tr>
</tbody>
</table>

| Content(s): | Design | x | Informatics / Technology | x | Economy / Business | Culture |

| Time frame in case of blocked event |

<table>
<thead>
<tr>
<th>Course Portrait</th>
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<tbody>
<tr>
<td>Lecturer(s) Name(s)</td>
</tr>
<tr>
<td>Lecturer(s) email</td>
</tr>
<tr>
<td>Contact Prof. @ fbmd</td>
</tr>
<tr>
<td>Teaching Method</td>
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</tbody>
</table>
The creation of **pixel art games** was more or less essential throughout the '80s due to hardware-limits of the time, but since then has rapidly declined with the introduction of 3D-capable home consoles and powerful PCs. But throughout the last decade, pixel art started coming back in the shape of retro revivals like Contra 4 and Mega Man 9, games that felt like they'd been made 15 or 20 years earlier. With the rise of download services on home consoles and the ease of indie publishing on newer consoles and mobile platforms this trend seems here to stay, as games with lower budgets naturally suit simpler graphics.

But while the term "pixel art" is often used synonymously with "retro," the style doesn’t have to stand for nostalgia. Pixel art is now one of video gaming's most characteristic visual styles, forged throughout the history of the medium and is inextricably linked to it. However, it still seems hard for people to take pixel art 'seriously' the same way they take 3D seriously sometimes. On the other hand, brilliant counter-examples show up like "Papers, Please", which almost no one would describe as 'retro' or '8-bit' despite the pixelated presentation.

So if you ever wish you could go back in time to the days of 8bit computing, when coding was simple and pixels were large, but with the achievements of modern development environments (no assembler ;), **Fantasy Consoles** are making this process easier than ever.

So what exactly is a fantasy console? Basically it's a virtual console with a complete development environment. The console is designed to be intentionally limiting, much like the primitive retro computers of the 8bit era. Generally they also come with a code editor, programming language (mostly Lua), tile and world editor and some form of music/sound composer. This gives developers a very focused, simple, and constrained programming environment to work with. You’d be surprised how stripping away all the modern accessories enables you to focus on a single concept... fun, the essence of games.

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**PICO-8** is the application that seemingly launched the entire fantasy console movement.

"A fantasy console is like a regular console, but without the inconvenience of actual hardware. PICO-8 has everything else that makes a console a console: machine specifications and display format, development tools, design culture, distribution platform, community and playership. It is similar to a retro game emulator, but for a machine that never existed. PICO-8's specifications and ecosystem are instead designed from scratch to produce something that has it's own identity and feels real. Instead of physical cartridges, programs made for PICO-8 are distributed on .png images that look like cartridges, complete with labels and a fixed 32k data capacity."

The elective course therefore has the **goal** to leave behind the chains of modern game engines and focus on students creating simple and fun experiences for the PICO-8 console, in Lua for an awkward 3:1 format of 384x128 pixels (3 PICO-8 screens wide). As a bonus, student games can be exhibited and played on a 2,80m wide large LED screen.

Students in this course will:

- Learn the basics of the Lua scripting language, which is still one of the most widely used scripting languages in the game industry.
- Learn to develop games on the PICO-8 Fantasy Console, including tricks to work with the imposed constraints.
- Develop one or more simple (or not so simple) games on PICO-8 in mixed teams of 2-3 (or alone), including pixel art and chiptunes style music.
- (Presumably) try out the games on a giant LED screen built into a bar in the GameLab.
<table>
<thead>
<tr>
<th>Type of Exam</th>
<th>homework</th>
<th>work+presentation</th>
<th>x</th>
<th>paper</th>
</tr>
</thead>
</table>

**Milestones if known**

**Examination**

**Examination / Presentation**

**End of Elective**

**Suitability** Intermediate student course

**Preconditions** Some understanding of either basic programming, creation of pixel art, or creation of waveform-based music (chiptunes)

**Info about lecturer (especially if guest)**

**Other information**

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* According to our examination law, the course titles have to be matched to a given catalogue with common course titles. This title will appear in the Transcript of Record and the Bachelor Certificate. Field has to be filed by Focus Managers, all clusters can be found below.

** The official presence-time is 3 SWS for the whole semester. As the elective period is condensed to 12 weeks instead of 16 weeks, the presence time for the electives is 4 SWS.

*** Courses and focal points: dm = Digital Media, oj = Online Journalismus; wj = Wissenschaftsjournalismus, blank field = please insert appropriate course.  *(check as many as apply)*

**** Block 1 = 8.30 - 10.00 Uhr, Block 2 = 10.15 - 11.45 Uhr, Block 3 = 12.00 - 13.30 Uhr, Block 4 = 14.15 - 15.45 Uhr, Block 5 = 16.00 - 17.30 Uhr, Block 6 = 17.45 - 19.15 Uhr

***** In case that the course does not start in the first week 6.10.2014 there has to be a first organisational meeting to finalize the application process

Elective Start: 9.04.20
Free Days 1,5.
Electives End 23.6.20

Please upload in Moodle Course!

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**to be filed by lecturer**

**to be filed by focus manager**

An die Schwerpunktleiter: Bitte auch die Folgeseite beachten.
Clustertitle DM PO 2007:

MEP1 Advanced Animation
MEP2 Advanced Video Production
MEP3 Graphic and Identity Design
MEP4 Sound Design and Production
MEP5 Interaction Design
MEP6 Media Experiments
MEP7 Media Events and Marketing
MEP8 Advanced Media Technology
MEP9 Advanced Informatics
MEP10 Media Theory

Clustertitle DM PO 2012:

ME2_01 Advanced Animation
ME2_02 Advanced Game Design
ME2_03 Advanced Video
ME2_04 Advanced Post Production
ME2_05 Interaction & Interface Design
ME2_06 Media Installation
ME2_07 Dramaturgy and Storytelling for Linear and Interactive Media
ME2_08 Media Experiments
ME2_09 E-Learning
ME2_10 Advanced Media Systems
ME2_11 Advanced System Technology
ME2_12 Interface Technology
ME2_13 Mobile/Web Application
ME2_14 3D Interactive Environment
ME2_15 Music & Technology

ME2_16 Media Events & Marketing
ME2_17 Media Producing in Different Fields of Media
SuK2_18 Media and Entertainment Law

ME2_19 Media Art History
ME2_20 Cultures and Creative Practice in Digital Media
ME2_21 Media Environments and Spaces
ME2_22 Media Ethics and Philosophy
ME2_23 Media and Communication Theories
ME2_24 Play, Game, Act, Use: Concepts, History and Practices

Clustertitle Studiengänge PO 2014

A&G:

Game Development
Technical Art for Animations and Games
Animation and Game Design
Animation and Game Methodology
Animation and Game Research and Development

IMD:

ME-D_01 – Design Management & Strategy
ME-D_02 – Design Concept & Dramaturgy
ME-D_03 – Audio/Visual Design
ME-D_04 – User Experience & Usability
ME-D_05 – Media Arts
ME-D_06 – Interaction & Interface Design
ME-D_07 – Interaction in Space
ME-IT_01 – Advanced Media Systems
ME_IT_02 – Advanced System Technology
ME-IT_03 – Interface Technology
ME-IT_04 – Mobile/Web Application
ME-IT_05 – 3D Interactive Environment
ME-M_01 – Media Events & Marketing
ME-M_02 – Media Producing
ME-M_03 – StartUp and Funding
ME-M_04 – Entertainment and Media Law
ME-PH_01 – Media Art History
ME-PH_02 – Cultures and Creative Practices in Digital Media
ME-PH_03 – Media Ethics and Philosophy
ME-PH_04 – Media and Communication Theories

MP:

ME_01 – Advanced Video Production
ME_02 – Advanced Post Production
ME_03 – Advanced Montage
ME_04 – Film-Sound
ME_05 – Media Installation
ME_06 – Creative Writing, Dramaturgy and Storytelling for Linear and Interactive Media
ME_07 – Media Experiments
ME_08 – Advanced Film, AV and studio technology
ME_09 – Transmedia Technology
ME_10 – Media Events & Marketing
ME_11 – Media Producing in Different Fields of Media
SuK_12 – Media and Entertainment Law *
ME_13 – Media Art History
ME_14 – Cultures and Creative Practices in Digital Media
ME_15 – Media Environments and Spaces
ME_16 – Media Ethics and Philosophy
ME_17 – Media and Communication Theories
ME_18 – Play, Game, Act, Use: Concepts, History and Practices

SMP:

ME1 - Computational Audio and Simulation
ME2 - Spatial Audio and Interaction
ME3 - Music and Media Production
ME4 - Post-Production
ME5 – Media Installation and PA
ME6 - Music and Media Theory
ME7 - Media Culture
ME8 – Film, Theatre, and Game
ME9 - Free multimedia elective
ME10 – Media Management