

Elective Course Description Summer Term 2024

Title	Pixel games for a super wide LED screen		
Cluster Title PO 07 To be filed by focus managers s.u.			
Cluster Title PO 2012 To be filed by focus managers s.u.			
Cluster Title PO 2014 To be filed by focus managers s.u.			
Date of first course event / first organizational meeting with students****/ Room	24.4.24 tbc	F17/25 or 17/23 tbc	NN
kind of room if not indicated above	Hörsaal	Seminarraum	Labor
Belegung über OBS - 28.3.-8.4.24 14:00	Achtung nur aus dem h-da Netz oder über vpn		

Course Data	credit points	5 credit points		
	workload/semester	125-150 h		
	presence/week on average**	4 SWS		
	Group size according to cnw			
	Min. size	8 students		
	XX.04. – XX.XX.24			
	weekday of course			
	frequency of course-events	weekly	x	bi-weekly
	prospective timeframe**** (Block = 90 min)	Block 1 8:30		Block 2 10:15
		Block 4 14:15	x	Block 5 16:00
				Block 6 17:45
	course language	English	x	German
	suitable for students of course/focus	DM		AG
		x	IMD	MP
		x	SMP	IW (BA)
			OJ/WJ/OK	I X
Content(s): (check one or more)	Design	x	Informatics / Technology	x
Economy / Business			Culture	
Time frame in case of blocked event				

Course Portrait				
Lecturer(s) Name(s)	Prof. Dr.-Ing. Martin Leissler			
Lecturer(s) email	martin.leissler@h-da.de			
Contact Prof. @ fbmd				
Teaching Method	lecture <input type="checkbox"/> lecture + seminar <input checked="" type="checkbox"/> seminar <input type="checkbox"/> project <input type="checkbox"/>			
Course Contents	<p>This course is designed for pixel artists, game designers, and game programmers who want to create innovative games for a special LED matrix screen with an aspect ratio of 3:1 and a resolution of 384x128 pixels. Students will learn how to leverage the unique screen format to design and develop games that stand out from the crowd, using the PICO-8 fantasy console and Lua programming language (https://www.lexaloffle.com/pico-8.php).</p> <p>The course will begin with an exploration of the capabilities and limitations of the special LED matrix screen, including the challenges and opportunities presented by the 3:1 aspect ratio. Students will think about innovative game</p>			

	<p>design concepts that take advantage of this unique format, such as asymmetric gameplay, wide-scrolling levels, and split-screen multiplayer.</p> <p>Next, students will dive into game programming using PICO-8 fantasy console and Lua. They will learn about the PICO-8/Lua programming language and how to use it to create games that are optimized for the LED matrix screen.</p> <p>Students will work on a variety of game projects throughout the course, starting with simple games and gradually increasing in complexity. They will learn how to use Lua to create custom game mechanics, implement advanced graphics and animation effects, and optimize performance.</p> <p>Finally, students will apply their game design and programming skills to create a final project that showcases their unique vision for a game on the LED matrix screen. They will work in teams to design, develop, and test their games, incorporating feedback from peers and instructors throughout the process.</p> <p>By the end of the course, students will have developed a range of innovative game designs that leverage the 3:1 aspect ratio of the LED matrix screen. They will have gained valuable skills in game design, programming, and collaboration that can be applied to a wide range of game development projects. They will also have a portfolio of completed games that showcase their creativity and technical proficiency.</p>
--	---

* 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)

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.

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!