

Elective Course Description Summer Term 2022

Title	Procedural World Construction			
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	25.4.22 14:15 F17/103 evtl im Wechsel online	NN		NN
kind of room if not indicated above	Hörsaal		Seminarraum	Labor <input checked="" type="checkbox"/>

Belegung über OBS
5.4.22-11.4.22

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			
	09.04. – 23.06.20				
		weekday of course			Monday
	frequency of course-events	weekly	bi-weekly	blocked	
	prospective timeframe**** (Block = 90 min)	Block 1 8:30	Block 2 10:15	Block 3 12:00	
		Block 4 14:15 <input checked="" type="checkbox"/>	Block 5 16:00 <input checked="" type="checkbox"/>	Block 6 17:45	
	course language	English	<input checked="" type="checkbox"/>	German	
	suitable for students of course/focus	DM		AG	<input checked="" type="checkbox"/>
		IMD	<input checked="" type="checkbox"/>	MP	
		SMP	<input checked="" type="checkbox"/>	IW (BA)	
		OJ/WJ/OK		I	<input checked="" type="checkbox"/>
Content(s): (check one or more)	Design <input checked="" type="checkbox"/>	Informatics / Technology <input checked="" type="checkbox"/>	Economy / Business	Culture	
Time frame in case of blocked event					

Course Portrait	
Lecturer(s) Name(s)	Prof. Stephan Jacob
Lecturer(s) email	stephan.jacob@h-da.de
Contact Prof. @ fbmd	
Teaching Method	lecture <input type="checkbox"/> lecture + seminar <input type="checkbox"/> seminar <input checked="" type="checkbox"/> project <input type="checkbox"/>
Course Contents	<p>The elective is targeting Tech Artists and Programmers.</p> <p>A lot of games featuring large areas and worlds or have a level generator to create mass of content in no time. Also, for some animations, we need a lot of assets to fill the background. This is often assembly line work and would be a waste of creative work time for Artists.</p> <p>In this elective, we will cover how to develop such worlds and content generators. After a short introduction to general Procedural Content Generation (PCG), we will learn how terrain systems work and also try to program our own landscape generator and dungeon generator in Unity. We will learn how Plants, Trees and other vegetation is automatically created and</p>

	<p>what techniques, methods and applications exists. (e.g. In Houdini) We will also learn how Citys, Buildings, Textures and even NPS, Quests or Names can be completely generated.</p> <p>Disclaimer: Although about 50% of the course will be dry theory - we will write actual code and create stuff! Both Programmers and Artists are welcome, but a basic understanding in coding will be very useful, also PCG code and methods needs more of a mathematical understanding than gameplay code. The elective is therefore targeted towards Tech Artists and programmers. We will be using Unity and Houdini.</p>						
Type of Exam	homework	<input type="checkbox"/>	work+presentation	<input checked="" type="checkbox"/>	paper	<input type="checkbox"/>	<input type="checkbox"/>
Milestones if known							
End of Elective							
Suitability	Intermediate student course						
Preconditions	Some understanding of eithtech-art or programming principles, as well as proficiency with Unity game engine.						
Info about lecturer (especially if guest)							
Other information							

* 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: 19.4.22

Holy Days: 26.5., 6.6., 16.6.2022

Please upload in Moodle Course!