

**Elective Course Description Summer Term 2017**

<b>Title</b>	Overthrowing Game Engine Tyranny: Games from Scratch with C++				
<b>Cluster Title PO 07</b> <small>To be filed by focus managers S.U.</small>	MEP9 Advanced Informatics				
<b>Cluster Title PO 2012</b> <small>To be filed by focus managers S.U.</small>	ME2_11 Advanced System Technology				
<b>Cluster Title PO 2014</b> <small>To be filed by focus managers S.U.</small>	Game Development				
<b>Date of first course event / first organizational meeting with students****/ Room</b>	10.4.17	<b>NN</b>		F17/105	
<b>kind of room if not indicated above</b>	Hörsaal		Seminarraum	Labor	<b>X</b>

**Belegung über OBS**  
23.3.17 – 28.3.17

<b>Course Data</b>	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				
	10.4.17 – 24.6.17					
		<b>weekday of course</b>			<b>Monday</b>	
	frequency of course-events	weekly	<b>X</b>	bi-weekly		blocked
	prospective timeframe**** (Block = 90 min)	Block 1 <b>8:30</b>		Block 2 10:15		Block 3 12:00
		Block 4 <b>14:15</b>	<b>X</b>	Block 5 16:00		Block 6 <b>17:45</b>
	course language			English		German
	suitable for students of course/focus			<b>DM</b>		<b>AG</b>
				<b>IMD</b>		<b>MP</b>
				<b>SMP</b>		<b>IW (BA)</b>
				<b>OJ/WJ/OK</b>		<b>I-M-K</b>
						<b>X</b>
Content(s): (check one or more)	Design		Informatics / Technology	<b>X</b>	Economy / Business	Culture
Time frame in case of blocked event	jeweils 12:30 – 15:30					

**Course Portrait**

Lecturer(s) Name(s)	Dipl.-Inf. Stephan Jacob					
Lecturer(s) email	stephan.jacob@h-da.de					
Contact Prof. @ fbmd	Tilmann.kohlhaase@h-da.de					
Teaching Method	lecture		lecture + seminar	<b>X</b>	seminar	project
Course Contents	<p>This course shows you how to develop an SNES-style game like Zelda or StreetFighter2 from ground up! Many game studios still have their own in-house engines written in C++ and using own Frameworks. Therefore it is still required to have solid C++ skills and knowledge of low-level engine procedures. Modern engines like Unity and Unreal are cloaking those deep features from their programmers. Our goal will be to uncover the underlying mechanisms and write our own engine, using nothing but Visual Studio and Spine (for Assets)</p> <p>This course covers the C++ language and basic development of a 2D game</p>					



\*\* 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: 10.04.17

Free Days: 17.4.17, 25.5.17, 4.6.17, 15.6.17

Electives End 24.6.17 (electives have to be finished! Please avoid time consuming blocks in June!)

Please upload in Moodle Course!

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