



FH Salzburg

# Realtime Art & Visual Effects<sup>1</sup>

Master



Technology  
Health  
Media

<sup>1</sup> subject to approval by the competent bodies

# Study Programme

**Simon Ohler**  
Lead Pipeline Developer, RISE Visual Effects Studios

»The embrace of modern workflows like USD, a focus on realtime environments, and the incorporation of proceduralism in the 'Realtime Art & Visual Effects' programme reflect a forward-thinking educational approach. Combined with generative AI, it forms a future-proof blend of technology and artistry, preparing students for the demands of an ever-changing industry.«

Embark on an evolutionary educational journey that merges art with groundbreaking technology. Our Master's programme in Realtime Art & Visual Effects integrates the principles behind leading real-time graphics platforms and intricate procedural generation tools. It's about mastering the interplay of creativity and technology, and spearheading the next era of immersive digital narratives.

## The T-Shaped Advantage

In the ever-evolving landscape of the creative and digital realm, adaptability is key. The T-shaped generalist model is central to our curriculum, equipping students with a blend of specialized knowledge and broad understanding. This approach prepares graduates to excel in their core domain while understanding and bridging interdisciplinary boundaries, crucial for success in dynamic creative environments. In the final semester, each student embarks on a comprehensive deep dive into a personal research project. Guided by individual supervision from an industry expert, this immersive journey culminates in their final master thesis, showcasing their prowess and specialized insight in the field.

## Future-Forward Career Opportunities

Graduates are primed for a vast spectrum within the creative industry and beyond. Opportunities range from creating VR/AR/XR content, delving into VFX production, leading innovations in the world's largest entertainment sector - the gaming industry, to redefining film and TV with virtual production techniques. Beyond these established fields, new horizons open in sectors like automotive, data visualization, medical science, and educational technology.

### Typical job titles include:

- Realtime-VFX Specialist
- AR/VR Content Developer
- Technical Artist
- Environment Artist
- Lighting Artist
- Simulation and Visualization Specialist
- Generative AI Artist
- Procedural Artist
- Virtual Production Artist

## Collaborative Excellence

The programme's strength is magnified by the long-standing collaboration between the study programmes MultiMediaTechnology and MultiMediaArt. Integrating into this collaboration establishes a triangular project structure and curriculum design. Realtime Art & Visual Effects seamlessly integrates within the Department of Creative Technologies, championing an integrative education model. This design promotes real-world collaboration among producers, technicians, and designers, mirroring industry expectations.

Find examples of master projects on our website:  
<https://portfolio.fh-salzburg.ac.at>



# Characteristics



## Three Pillars, Endless Possibilities

Unlock your potential with our cutting-edge programme that focuses on three key areas of expertise:

### Realtime Workflows

Dive deep into the world of real-time graphics, where the boundaries between interactivity and visualization merge seamlessly. Master the creation of breathtaking interactive applications, while also leveraging realtime engines for non-interactive media, such as movies and other passive visual content. This mastery ensures a dynamic presence across various media platforms, from interactive to the silver screen.

### Procedural Workflows

Transcend the traditional. Learn to replace the conventional linear production with dynamic, system-oriented techniques, allowing for the creation of complex environments, mesmerizing effects, and radiant visualizations with both efficiency and artistry.

### AI & Production Workflows

Explore where advanced technology enriches artistic endeavors. Learn the nuances of photogrammetry for accurate environment replication, and the art of performance capture for vivid digital characters. Step into virtual production, merging on-location shoots with real-time digital layers. And with Generative AI, enhance the potential of realizing ambitious creative concepts, ensuring a holistic approach to digital storytelling.

## Expertise at the Helm

Our teaching roster is comprised of industry luminaries, ensuring our curriculum remains at the cutting edge. Lecturers come equipped with hands-on experience from their tenures at global powerhouses such as Trixter, Rise Visual Effects, Industrial Light & Magic, Epic Games, Scanline VFX, Pixomondo, DNEG, and UBISOFT. This synergy guarantees students an education that is in sync with the latest industry standards and practices.

## Industry Partnerships and Endorsements

Our programme boasts robust ties with a wide array of industry stakeholders, ranging from local pioneers to global frontrunners. At the international level, our acclaim is underscored by endorsements from Epic Games, the creators of a leading game engine and SideFX, the masterminds behind a premier procedural-based platform. These partnerships have resulted in our esteemed recognitions as an Unreal Academic Partner and a Side Effects Certified School.



**ACADEMIC  
PARTNER**



# Curriculum

More detailed information  
can be found on our website:  
[www.fh-salzburg.ac.at/  
rve-master](http://www.fh-salzburg.ac.at/rve-master)

Module	Course	Semester			
		1	2	3	4
<b>Theory und Research</b>					
	research & academics / IMPULSE   METHOD   FORM   SUPPORT   GUIDANCE	2 (1)	2 (1)	2 (1)	12 (2)
	technical / MATH & SCRIPTING   CODE & FORMAT	3 (2,5)	2 (2)		
	artistic / CAMERA & COMPOSITION / LIGHT COLOR MOTION	2 (1,5)	2 (1,5)		
	spatial / AESTHETICS & DESIGN			4 (2)	
<b>Project Development</b>					
	project + assistance		6 (2)	6 (2)	
<b>Personal &amp; Social</b>					
	symposium / ETHICS & SUSTAINABILITY	1 (1)			
	process / CONCEPT   DECK & PITCH	3 (2)			
	process / TIMELINE & RESOURCE		1 (0,5)		
	process / COMMUNICATION & CONTROL			1 (0,5)	
	process / POLISH & PRESENTATION				2 (1)
	industry / CONFERENCE	0,5 (1)	0,5 (1)	1 (1)	
	industry / EMERGING TOPICS		1 (1,5)		
	industry / PORTFOLIO   COMPANY VISITS				2 (3,5)
<b>Workflow Proficiency</b>					
	realtime / VFX 1 / Particles	2,5 (1,5)			
	realtime / ENVIRONMENT	4 (3)			
	realtime / VFX 2 / Destruction		1,5 (1)		
	realtime / LIGHT		3 (2)		
	realtime / MOTION		2 (2)		
	realtime / RENDERING & COMPOSITING			3 (2)	
	realtime / VIRTUAL & MIXED REALITIES			2 (1,5)	
	procedural / WORKFLOW	4 (3)			
	procedural / ENVIRONMENT		4 (3)		
	procedural / ANIMATION / Character & Crowds			2 (2)	
	procedural / VFX 3 / Fluids			2 (1,5)	
	toolchain / 3D / Reconstructions	2 (1,5)			
	toolchain / PERFORMANCE / Capture		1 (1,5)		
	toolchain / PRODUCTION / Pipelines			2 (2)	
	toolchain / RENDERING / XPU			1 (1)	
	toolchain / AI / Prompt Engineering	2 (1,5)			
	toolchain / AI / Implementation		1 (1)		
	toolchain / AI / experiments			1 (1)	
<b>Electives<sup>1</sup></b>					
	Realtime Fundamentals	4 (2)			
	Digital Content Creation Fundamentals	4 (2)			
	Visual Scripting Fundamentals	4 (2)			
	Virtual Production		3 (2)	3 (2)	
<b>Master Thesis</b>					
	Master Thesis				10 (0)
	Master Exam				4 (0)
	<b>ECTS (CHW)</b>	<b>30 (21,5)</b>	<b>30 (22)</b>	<b>30 (19,5)</b>	<b>30 (6,5)</b>

<sup>1</sup> Choose one elective per semester

ECTS: European Credit Transfer and Accumulation System  
CHW: contact hours per week per semester

This chart shows the curriculum only exemplarily.

# Studying at Salzburg University of Applied Sciences

Salzburg University of Applied Sciences offers practical course content in line with the requirements of business and society. Qualified and experienced teaching staff from both scientific and practical fields guarantee an academic education of the highest standard. Together with the first-rate facilities in our lecture halls and laboratories, they provide the basis for a successful course of study. Our locations, offering a total of 18 bachelor programmes, 15 master programmes and further education possibilities, are situated in some of the most beautiful regions in the world. Whether you are an art and architecture buff, a music fan or a lover of the great outdoors, Salzburg combines historical heritage and modern lifestyle culture to offer something for everyone.

**Urstein Campus:** This modern building houses our central administrative offices and is where most of our degree programmes are taught. The campus is surrounded by greenery, next to the neighbouring medieval estate known as the »Meierei« and our new premises at the »Wissenspark«.

**Kuchl Campus:** This campus, built to contemporary »passive house« energy efficiency standards, is located amongst the greenery at the foot of the Tennengebirge mountains. Six of our degree programmes are based here.

**Salzburg Campus (University Hospital LKH):** Practical lessons and some of the tuition for degree programmes in Health Studies are held at the University Hospital in the city of Salzburg.

**Schwarzach Campus (Kardinal Schwarzenberg Hospital):** Our degree programme for Nursing is additionally held at the »Kardinal Schwarzenberg Klinikum« in Schwarzach (district of Pongau).

**International:** Gain experience abroad at one of our 170 partner institutions around the world. The global exchange of knowledge not only allows you to gain valuable insights into other cultures, but also to make lots of new friends. Our International Office will assist you in organising a semester or placement abroad.

**Career Center:** We support students in planning their careers and entering the world of work. Students can benefit from exclusive free workshops on 'career planning' and a jobs and careers portal: [www.fh-salzburg.ac.at/career-center](http://www.fh-salzburg.ac.at/career-center)

**Sport:** Our Sports Department offers our students the chance to take part in a wide range of courses and training programmes. Find out more at [www.fh-salzburg.ac.at/sport](http://www.fh-salzburg.ac.at/sport)

**Living & studying:** There is student housing located on the Urstein and Kuchl campuses. Please go directly to [www.studentenheim.at](http://www.studentenheim.at) for more information.

**Public Traffic:** There are excellent train and bus connections between all locations.

Urstein Campus



Kuchl Campus



Get to know us better:



# Application & Admission

**Manuel Thomasser**

Head of Layout Department, Pixomondo

»The VFX landscape is evolving rapidly with increasing content complexity. This programme equips students with skills in procedural workflows and real-time integration, emphasizing immediate feedback for content generation. By blending these methods with the advancements in generative AI, students experience firsthand the power of instant creation. I believe graduates of this programme will undoubtedly pave the way for the industry's future.«

**Study mode:** full-time

**Length of study:** 4 semesters

**Language of instruction:** English

**Degree awarded:** Master of Arts in Arts and Design (MA)

**Study places per year:** 20

**Location:** Urstein Campus

**Tuition:** 363 Euro pro Semester + student unions fee

## Prerequisites for admission

- Relevant university degree (bachelor's or diploma degree) from a domestic or foreign institution of higher education or
- Non-subject-related degree with proof of 20 ECTS in digital content creation or software development
- English Level B2

## Application procedure

1. Online application at:  
[www.fh-salzburg.ac.at/online-bewerbung](http://www.fh-salzburg.ac.at/online-bewerbung)  
Submission of application documents: Curriculum vitae, study certificates and thesis, portfolio, letter of motivation
2. Interview

**Application deadlines and updates can be found on our website.**

## Further information

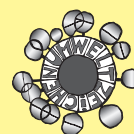
[www.fh-salzburg.ac.at/rve-master](http://www.fh-salzburg.ac.at/rve-master)

## Student projects

[portfolio.fh-salzburg.ac.at](http://portfolio.fh-salzburg.ac.at)

## Kontakt

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