Interactive Media

Expertise in Interactive Technologies, Computer Games and Online Media

As digital technologies and media continue to permeate more aspects of our everyday lives, the need for intuitive and natural interfaces with integrated, intelligent functionality is becoming even greater. Our Interactive Media program focuses on preparing graduates for challenging roles in the development of innovative technologies and the production of complex projects in the ever-evolving media industry.

The graduate program features both a broad selection of specialised courses in the field of Interactive Media and a substantial project-based component that enables students to develop their own individual focus. In addition to providing a solid industry-oriented education, the program seeks to hone students' communication skills and refine their systematic approaches to problem-solving and engineering for interaction.

Career Profile

Graduates of Interactive Media have acquired both the conceptual and design skills necessary for developing innovative media projects and the technical expertise to contribute to their subsequent implementation. Their specific qualifications make them sought-after experts in a variety of fields, including game development, multimedia systems, cooperative workflow solutions, mobile applications, front-end and full-stack web development, content and document management systems, digital asset management and streaming media services. And often, our graduates serve as catalysts for new digital strategies and technologies in other contexts, such as the automotive industry.

Study Focus

The Interactive Media program is built around an essential core curriculum with four interlocking domains that can be augmented by a selection of elective courses:

→ **Interactive Technologies:** Human-computer interaction, physical prototyping, UX design, computer vision, collaborative work environments, mixed reality
→ **Computer Games:** Game development, game engine architecture, real-time graphics, physics simulation, artificial intelligence, multiplayer and online games, audio systems and processing
→ **Online Media:** Web application architecture, full-stack web development, machine learning and web intelligence, natural-language processing and chatbots, pervasive computing, big data
→ **Data Journalism:** foundations of editorial workflows, computational journalism, critical data practice, analytics/dashboards

Degree
→ Master of Science in Engineering (MSc)

Duration
→ 4 Semester (120 ECTS)

Annual Intake
→ 24

Admission Requirements
→ Completed Bachelor's degree or similar qualification in a relevant subject, with a minimum of 60 ECTS in IT-related subjects
→ sound knowledge of English.

Application
→ Online – details & deadlines on fh-ooe.at/application

Admission Procedure
→ by interview

Language of Instruction
→ English

Semester Abroad
→ Flexible curriculum allows students to study at one of our partner universities.

Tuition Fees
→ EU/EEA citizens: 363.36 EUR per semester (plus Austrian Student Union fee).
→ Citizens from non-EU/EEA countries: 726.72 EUR per semester (plus Austrian Student Union fee).
→ Scholarships available.

Curriculum

Core and elective courses	ECTS / semester	1	2	3	4
→ Foundations					
Artificial Intelligence		5			
Human-Computer Interaction		5			
Information Visualization			5		
Software Design Methods			5		
Scientific Methods and Communication				5	
→ Interactive Technologies					
Real Time Graphics[1]		5			
Visual Computing[1]			5		
User Interfaces[1]				5	
Pervasive Computing[1]					5
Special Topic in Interactive Media[1]		5			
→ Game Development					
Game Development[1]		5			
Real Time Engineering[1]			5		
Spatial Computing[1]				5	
Game Spaces[1]					5
→ Online Media					
Hypermedia UX Engineering[1]		5			
Hypermedia Frameworks[1]			5		
Intelligent Media[1]				5	
Big Data[1]					5
Special Topic in Interactive Media[1]					5
→ Data Journalism					
Data-intensive Journalism Foundations[1]			5		
Data-intensive Journalism Practice[1]				5	
→ Projects					
Project		10	10		
Thesis Project				10	
→ Master's Thesis					
Master's Thesis				5	19
Master's Examination					1

> **Interactive Media technologies are in a constant state of flux. Our graduates meet the demands of these developments by designing and implementing new functionality and enhancing the overall user experience. The ultimate goal of our program is to provide students with relevant design approaches and hands-on experience that will guide them in their development of the interactive systems of the future.**
>
> Rimbert Rudisch-Sommer, Program Coordinator

[1] elective course

ECTS: European Credit Transfer System
Note: Students have to achieve a minimum of 120 ECTS credits in total (30 ECTS credits per semester).
The main language of instruction in this degree program is English, thus a sound knowledge of the language is required.

Practical Experience and Research

Project opportunities can be explored both in cooperation with leading industry partners or in one of our campus research groups. Our Media Interaction Lab (MIL) is one of Austria's leading research institutions in the field of human-computer interaction. The activities are evident in recent projects with automotive companies, as one major goal is to develop and investigate next-generation interfaces for the transportation of tomorrow.

Our research group Playful Interactive Environments (PIE) investigates new and natural forms of playful interaction for various contexts. Its research activities include co-located games, multiuser interaction in mixed reality, hybrid reality games, serious games and expanded animation.

The focus of our Web Intelligence and Innovation Laboratory (WIN-Lab) lies in multimedia web applications and the analysis and visualization of media data. Expertise in machine learning, experience in current web development practices, know-how in multimedia formats and APIs, and competence in visualization techniques are the basis for the successful research projects conducted within this lab.

Study Abroad

The Interactive Media progamme is taught in English and its international environment equips students with the language and intercultural skills necessary to succeed in the global media industry. A semester abroad can additionally be spent at one of our partner universities in countries such as Italy, Denmark, UK, Sweden, and Norway.

Good to Know

→ Our PIE Lab develops games that motivate players to improve their nutrition, think more sustainably and exercise social courage. Many of our graduates are valued employees at leading technology companies such as Microsoft, Google, and Dynatrace.

Contact

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