

JOINT MASTER | FULL-TIME | 4 SEMESTERS | ENGLISH

# *Gamified Reality Applications for Real-world Challenges and Experiences (GRACE)\**

St. Pölten University of Applied Sciences (Austria)  
Saxion University of Applied Sciences (The Netherlands)  
Vidzeme University of Applied Sciences (Latvia)

*\*intended  
to start*



E<sup>3</sup>UDRES<sup>2</sup>  
Joint Master

**GRACE**

# Gamified Reality Applications for Real-world Challenges and Experiences\*

Recent developments in technologies such as Extended Reality (XR) and Artificial Intelligence (AI) significantly influence our learning processes and the way we acquire new skills. The development of XR applications in simulated or real environments for training, therapy, educational, or entertainment purposes has increased significantly. This specialized Joint Master programme combines aspects of gamification, didactics, and game technologies and enables students to develop innovative solutions for real-world challenges and improve the quality of life in various areas of society.

## Your Studies

GRACE focuses on XR's gamification, blending its features with gaming for engaging learning experiences. XR offers safe learning environments, saves time and resources, and enhances patient treatments. Industries like construction, retail, and healthcare benefit from XR simulations and training. XR-based gamification holds promise in various sectors, including tourism and emergency services. As a student of GRACE, you will gain first-hand insight and experience in the demands of the industries and contribute to the development of future solutions by designing innovative challenge-based applications.

Within GRACE's integrated mobility concept, you will complete the

- 1st semester at St. Pölten UAS in Austria,
- the 2nd semester at Saxion UAS in The Netherlands,
- and the 3rd semester at Vidzeme UAS in Latvia.

The 4th semester is dedicated to finalizing the Path to Reality, including the master's project and thesis.

## What Makes Your Studies Unique

GRACE integrates gamification throughout its curriculum, notably in the "Path to Reality" module spanning four semesters. This module emphasizes self-assessment, external assessment skills, and an entrepreneurial mindset, rooted in the EntreComp framework. Three learning paths are emphasized:

- **Communication and Collaboration with Industry/Business:** Focuses on effective project communication, negotiation strategies, and interdisciplinary teamwork with industry and business partners.
- **Design and Prototyping:** Develops technical and design competencies, particularly in XR-based gamification.
- **Social Communication and Reflection:** Nurtures effective team dynamics, peer-assessment techniques, and conflict resolution strategies.

With its self-referential pedagogical approach, GRACE enhances learning through interactive elements, fostering creativity, critical thinking, collaboration, and problem-solving skills. The integrated mobility path linking three European countries promises a magnificent lifetime experience and a unique opportunity to build an extensive professional network to start a career.

# Curriculum

Semester 1 St. Pölten UAS	Semester 2 Saxion UAS	Semester 3 Vidzeme UAS	Semester 4
1. Path to Reality (I-IV)			Master Projekt & Thesis
2. Design & Innovation (I-III)			
3. Didactics & Gamification (I & II)			
4. Development & Implementation (I-III)			
5. Evaluation & Dissemination (I-III)			

## Your Career

Recent advancements in technologies like Extended Reality (XR) and Artificial Intelligence (AI) are profoundly shaping our learning processes and skill acquisition. XR applications, whether in simulated or real environments for training, therapy, education, or entertainment, have seen a significant surge. According to the European Commission's strategy for Web 4.0 and virtual worlds released in July 2023, the market volume is projected to reach up to 800 billion euros by 2025, with a demand for 860,000 employees in Europe. Key focus areas of the strategy include health, industry, education, green initiatives, and art & design.

## Admission Requirements

- Applicants must hold a Bachelor of Science or a Bachelor of Engineering degree or an equivalent university diploma in Game Development, Game Design, Creative Computing, Digital Games, Information Technology, Multimedia Technology, Computer Science in Real-Time Interactive Simulation, Extended Reality, Expanded Reality, AR/VR/XR Development & Design, or XR Design.
- A minimum of TOEFL 550, IELTS 6.0, or similar English language qualification for EU and NON-EU students.



© Alphart Photography

02/2024



**Academic Degree**  
Master of Science (MSc)



**Information**  
FH-Prof. Dr. Michael Iber  
michael.iber@fhstp.ac.at



**Duration of Studies**  
4 semesters, 120 ECTS



**Study Places/Year**  
Places for new students: 25



**Organisational Form**  
full-time | English