ESTONIAN
ENTREPRENEURSHIP UNIVERSITY
OF APPLIED SCIENCES

Emerging Technologies in Game Development (AD-040)

(UUED TEHNOLOOGIAD MÄNGUARENDUSES)

(Новые технологии в разработке игр)

SUBJECT DESCRIPTION

Credits (ECTS)	3.00 ECTS
Assessment	grading

Aim of the subject and short description

The objective of this course is to provide students with a foundational understanding of how emerging technologies—specifically blockchain, cryptocurrencies, and artificial intelligence—are transforming the game development landscape, equipping them with the knowledge to critically assess and apply these technologies in innovative and practical ways.

Students will examine how these technologies are shaping the industry, from blockchain-based economies and NFT integration to AI-driven game design and procedural content generation. The course will provide both a theoretical foundation and practical insights into their applications, opportunities, and challenges.

Through case studies and hands-on exercises, students will analyse real-world examples and experiment with tools relevant to blockchain and AI in game development. Ethical considerations, sustainability, and the evolving landscape of digital ownership will also be discussed.

Prior knowledge of blockchain or AI is not required, but a basic understanding of game development principles is recommended. Through discussions, research, and prototyping, students will gain a comprehensive understanding of how these technologies are influencing the future of interactive entertainment.

Learning outcomes:

Student:

1. will be able to understand the fundamental principles of blockchain, cryptocurrencies, and smart contracts in the gaming industry;
2. will be able to explore AI applications in procedural content generation, non-playable character (NPC) behaviour, and adaptive storytelling;
3. will be able to evaluate the ethical and technical challenges associated with emerging technologies;
4. will be able to identify potential use cases and future trends in game development.