ESTONIAN
ENTREPRENEURSHIP UNIVERSITY
OF APPLIED SCIENCES

3D Animation (AD-044)

(3D ANIMATSIOON)

SUBJECT DESCRIPTION

Credits (ECTS)	5.00 ECTS
Assessment	grading

Aim of the subject and short description

The objective of this course is to provides a comprehensive introduction to 3D animation for game development, covering key principles, workflows, and techniques used in the industry. Students will learn how to create believable character animations, dynamic environmental motion, and interactive animations suited for real-time engines. The course emphasizes both artistic and technical aspects, ensuring students develop a strong foundation in animation theory while gaining hands-on experience with industry-standard tools such as Maya, Blender, and Unreal Engine/Unity.
Through practical assignments and project-based learning, students will explore keyframe animation, motion capture, rigging, and physics-based animation, applying these techniques to bring game assets to life. Special attention will be given to optimizing animations for real-time performance and ensuring smooth player interactions in interactive environments.
This course is designed for students with a basic understanding of 3D modelling and game development. Through a combination of theory, practical exercises, and project work, students will gain the skills necessary to create high-quality animations that enhance gameplay and storytelling in interactive media.

Learning outcomes:

Student:

1. will be able to apply fundamental animation principles such as timing, weight, and anticipation to 3D characters and objects;
2. will be able to create and refine keyframe-based and motion-captured animations;
3. will be able to develop rigging and skinning solutions for animated characters and assets;
4. will be able to implement and optimize animations for real-time game engines;
5. will be able to understand animation pipelines and workflows used in game development.