VIDZEMES AUGSTSKOLA

FACULTY OF ENGINEERING
STUDY COURSE DESCRIPTION

Course Title:	**3D modelling in Blender**			
Course code (LAIS):	*The course code is assigned after it is registered in the study information system.*			
Study programme:	**Information technology**			
Level of Study programme:	☐ 1st level professional higher education			
	☒ Professional Bachelor			
	☐ Professional Master			
	☐ Academic Master			
	☐ PhD level			
Type of Study programme:	☐ Compulsory course (Part A)			
	☐ Professional specialization courses (Part B, compulsory)			
	☒ Professional specialization optional courses (Part B, optional)			
	☐ Elective courses (Part C)			
Course Workload:	**Credits[1]**	Academic hours	Contact hours	Independent work hours
Full time:	6	150	60	90
Part time:	9	150	18	132
Course Author/ Tutor:	**Lauris Taube**			
	Guest lecturer, Mg.sc.comp.			
	e-mail: lauris.taube@va.lv			
	Consultation: according to the schedule for each semester			
Study Form:	Full time studies/Part time studies			
Study year, semester:	3rd year, 6th semester full time studies, 3rd year, 6th semester part time studies,			
Language:	Latvian/English			
Prerequisites for the Course:	-			
Course Summary:	The aim of this course is to provide a high level of expertise and skills on the concepts of three-dimensional modelling, so that three-dimensional models can be successfully developed for different projects and needs. In this course, students will be familiarized with the basis of modelling, texturing, animating and other workflows. The course lessons will focus on the correct understanding of concepts and their application in different contexts, developing efficient models for various purposes, such as the development of computer games.			
Assessment:	Exam – exam work submission			
Requirements for Credits:	1. Practical lecture work submission – accounts for 20% of the final score. 2. Independent/homework work grade – accounts for 30% of the final score. 3. Exam grade – accounts for 50% of the final score. The use of AI tools for creating 3D models is prohibited within the course. It is only permitted to use them for creating separate image and texture files. • The submitted work will be evaluated in the 10-point system, taking into account the following criteria: brilliant (10) - knowledge, skills and competences outweigh the knowledge gained during the course; excellent (9) - knowledge, skills and competences fully correspond to the knowledge to be acquired during the course;			

[1] *Eiropas kredītpunktu pārneses un uzkrāšanas sistēmas studiju uzskaites vienība*

	very good (8) - completely fulfilled the requirements of the task, however, some of its implementation nuances are not sufficiently deep understanding; well (7) - the requirements of the task are generally fulfilled, however, sometimes the inability to use the acquired knowledge to be used for the given task is revealed; almost well (6) - the requirements of the task are fulfilled, however, at the same time, an insufficiently deep understanding of the task and inability to use the acquired knowledge are detected; satisfactory (5) - the requirements of the task are fulfilled, however, there is insufficient knowledge of some skills in the task and inability to use the acquired knowledge; almost satisfactory (4) - poorly fulfilled task requirements, insufficient understanding of basic concepts is detected, there are significant difficulties in the practical use of the acquired knowledge; poor (3) - knowledge is superficial and incomplete, the student is not able to use it for a specific task; very weak (2) - superficial knowledge only about certain problems, most of the task requirement is not learned; very, very weak (1) - there is no understanding of the basic problem of the task, there is hardly any knowledge of the topics covered in the course.
Abiding by the Academic Ethics	Students must abide by the academic and research ethics, Vidzeme University of Applied Sciences Ethics Regulations, incl.: - study papers must be independently developed; - the study work should reference all statements, ideas and data used that have been authored by someone else; - appropriate data acquisition methods should be used in the acquisition of data, the research ethics must be respected, empirical data must be collected independently and cannot be distorted or falsified; - the examination must be carried out by the student independently, without the use of supporting materials and/or consultations with other students, unless the lecturer states otherwise. In the event of non-compliance with the academic and research ethics, punishment is imposed in accordance with the ViA Ethics Regulations and the study course must be re-taken, unless the punishment is exmatriculation.
Learning Outcomes; the evaluation methods and criteria	

Learning Outcomes	The evaluation methods and criteria
Knowledge	
Can describe and distinguish tools in Blender software.	Practical lecture and homework submissions.
Can describe 3D modelling concepts and how to apply them.	Practical lecture and homework submissions.
Can describe common errors and problems for 3D modelling in Blender.	Practical lecture and homework submissions.
Skills	
Can use the provided tools in Blender software.	Practical lecture and homework submissions.
Can create a basic 3D model.	Practical lecture and homework submissions.
Can add correct texturing to 3D models.	Practical lecture and homework submissions.
Can create various types of animation.	Practical lecture and homework submissions.
Can use 3D sculpting tools to create detailed 3D models.	Practical lecture and homework submissions.
Can correct common errors and problems in 3D models.	Practical lecture and homework submissions.
Competency	
Ability to develop good quality models using acquired knowledge.	Practical lecture and homework submissions. Exam.
Ability to evaluate their own and others work.	Peer review evaluation.
Ability to find errors and mistakes in their own and others work.	Peer review evaluation.
Ability to correct existing errors in a 3D model.	Practical lecture and homework submissions. Exam.

Course Compulsory literature:	Chronister James, 2017, Blender Basics 5th Edition Blain John M., 2012, The Complete Guide to Blender Graphics Ahearn Luke, 2016, 3D Game Textures 4th Edition Beane Andy, 2012, 3D Animation Essentials Totten Chris, 2012, Game Character Creation with Blender and Unity
Course additional literature:	**-**
Course confirmation date:	08.12.2022
Date of course description update:	24.04.2025

Study Course Plan for full time students:

Date	Theme	Academic hours		Study Form/ Organization of independent work of students and task description
		Contact hours	Independent work hours	
The date is specified before the implementation of the course	Introduction in 3D modelling.	2	2	Lecture
	Introduction in Blender software.	2	2	Lecture
	Practical introduction in 3D modelling.	4	4	Lecture
	Practical introduction in 3D modelling.	4	4	Lecture
	Hard-surface modelling.	4	9	Lecture
	Organic modelling.	4	9	Lecture
	3D model texturing 1.	4	6	Lecture
	3D model texturing 2.	4	6	Lecture
	Animating.	4	10	Lecture
	Introduction in sculpting.	4	7	Lecture
	Model retopology.	4	7	Lecture
	Model baking.	4	4	Lecture
	Overview of extra functionalities.	4	2	Lecture
	Practical lecture.	4	4	Practical lecture
	Practical lecture.	4	4	Practical lecture
	Exam.	4	10	Exam
	Hours total:	***60***	***90***	

Study Course Plan for part time students:

Date	Theme	Academic hours		Study Form/ Organization of independent work of students and task description
		Contact hours	Independent work hours	
The date is specified before the implementation of the course	Introduction in 3D modelling.	1	1	Lecture
	Introduction in Blender software.	1	2	Lecture
	Practical introduction in 3D modelling.	1	10	Lecture
	Practical introduction in 3D modelling.	1	9	Lecture
	Hard-surface modelling.	2	10	Lecture
	Organic modelling.	2	10	Lecture
	3D model texturing 1.	1	10	Lecture
	3D model texturing 2.	1	10	Lecture
	Animating.	2	10	Lecture
	Introduction in sculpting.	2	10	Lecture
	Model retopology.	2	10	Lecture

	Model baking.	1	8	Lecture
	Overview of extra functionalities.	1	6	Lecture
	Practical lecture.	0	8	Practical lecture
	Practical lecture.	0	8	Practical lecture
	Exam.	0	10	Exam
	Hours total:	***18***	***132***	