Course name	Computer Techniques of 3D Modelling
Entity running the course	Faculty of Ceramics and Glass, Department of Interdisciplinary Activities in Ceramics and Glass
Entity for which the course has been prepared	Department of Ceramics, Department of Glass
Course type	Core course, compulsory course.
Year of study/semester; Type of studies	Year 2 /semester 3, 4/; full time bachelor's degree studies
ECTS credits	2
Academic tutor	Krzysztof Mielczarek
Aim of the course	The aim of the course is to introduce and familiarize the student with the software for editing 3D solids.
Prerequisites	A basic knowledge of technical drawing, knowledge of the fundamentals of geometry.
Learning outcomes:	
– *knowledge*	The student has a basic knowledge of the use of 3D editing programs, for the purpose of building a coherent and understandable communicate. Based on the previous assignments and lectures about the use and methods of working with the 3D editing programmes, the student understands the concepts related to working with the programme interface and is aware of the use of the basic tools and methods of their mutual interaction; they can propose a method of working with 3D software and identify different methodologies of work. They can create basic objects in 3D environment and identify the components of complex 3D designs.
– *skills*	The student has the basic skills to select and use the tools in the 3D editing environment. They consciously use them and can make independent decisions in the area of designing and realizing complex design works, they are able to understand and apply the designed models to the preparation of a basic design documentation. The student is able to draw conclusions from a cause and effect link of the tools'work. They are able to use the 3D environment for the purpose realizing design assignments. They understand the fundamental concepts concerning operations on 3D solids.
– *personal and social competence*	The student can name the processes and identify the problems occuring while working in the 3D environment. They understand the concepts and use correct terms.
Course content	Familiarization with the interface. Navigation in the 3D environment. Creating simple solids. Translation, rotation and scale. Solving design problems with the use of previously introduced tools. Creating spatial compositions. Creating objects in complex sets. Preliminary information about the devices for prototyping. Introduction to the usage of the 3D programmes including raster, vector and CAD software.
Course form and number of course hours	Classes in the computer studio, individual projects, lectures, exercises, 30 hours/sem.
Assessment methods and criteria	80% executing assignments – realization of a project, innovation (in semester 4 – examination review - 30%) 15% working critique 5% active participation in a discussion
Assessment type	Semestr 3 – graded pass. Semestr 4 – examination review.
Literature	Http://Area.autodesk.com/Forum/ http://lesterbanks.com Autodesk Official Training Guide – Maya 2013 Essentials, Paul Nass, 2012
Teaching aids	Computer graphic workstations, tablet, 3D printers, Rapid Prototyping
Language of instruction	Polish with the possibility of communicating in English.