



Course name	Computer Assisted 3D Design
Entity running the course	Faculty of Interior Architecture and Design
Entity for which the course has been prepared	Department of Stage Design
Course type	core / compulsory course
Year of study / semester, type of studies	year III / sem. V and VI; intermediate level, full-time master's degree studies
ECTS credits	2 pts ECTS per semester
Academic tutor	ass. prof. Witold Owczarek
Aim of the course	<p>Aim of this course is to familiarize students with advanced knowledge about possibilities of creating one's own toolkit based on digital techniques, which is a preparation to practical activities in the area of graphic project visualization. Skillful building readable and visually appealing 2D and 3D projects. Empowering stage designer's toolkit in the area of solving design problems which are part of complete scenography preparation.</p>
Prerequisites	<ul style="list-style-type: none">- advanced knowledge of using 2D and 3D computer software- knowledge of using tools such as desk scanner, flatbed scanner, roller scanner- creativity, manual skills, creative observation skills, ability of making use of outside sources of information and documentation, in order to prepare projects and project documentation as well as technical documentation- knowledge in the area of art history and culture- skillful use of computer and internet resources, graphic software and computer tools

Learning outcomes:

- knowledge

Extended knowledge in the area of techniques and technologies of 2D and 3D graphic design software; student knows and can recognize and choose basic electronic tools suitable for specific project. Student has knowledge in the area of composition, typography, colour theory. Knowledge of design possibilities in CorelDraw, Adobe Photoshop, 3DMax, Rhinoceros. Knows complex digital graphic tools in 2D and 3D programs. Has knowledge in the area of large format digital printmaking and other print technologies. Has basic skills in the area of 3D printing, preparing materials to work with digital plotters, problems of building complex objects with different digital tools, 3D machine tools, cutting with water stream, laser cutting, plasma. Preparing technical documentation in various techniques and technologies.

- skills

Student has basic knowledge of using CorelDraw, Adobe Photoshop, 3DMax, Rhinoceros for preparing a project for print. Consciously uses digital tools for preparing complex graphic designs. Student can prepare a digital document for editing and digital printing. Can prepare project documentation such as presentation boards and basic technical documentation. Can prepare stage design projects, and technical documentation in order to execute stage design production.

- personal and social competence

Student has basic knowledge about cooperation and working in group while creating a project together. Can use specialized vocabulary while communicating with technical team.

Course content

Ability to use CorelDraw, Adobe Photoshop, 3DMax, Rhinoceros on a basic level. Preparing technical documentation, presentation boards. Preparing complex scenes, building complex objects, extended knowledge about materials used in building, rendering and mapping 3D objects. Specific qualities of materials used in building and rendering 3D objects. Transparency, reflection, texture. Advanced questions in the area of digital image editing, preparing a document for digital print and introduction to preparing offset print. Introduction to making projects in technologies other than print and 3D print, plotting, cutting and manipulating digitally controlled machine tools. Preparing for multimedia presentation.

Course form and number of course hours

Lectures, exercises, workshops, consultations (30 hours per semester).

Assessment methods and criteria

25% executing assignments / active participation in classes / working reviews
75% open critique of works

Assessment type

graded pass (winter semester), examination review (summer semester)

Literature

B l a t e r D. R o t h S., Skanowanie i półtony w praktyce, Kraków 1995

H.P. Willberg, F. Forssman, „Pierwsza pomoc w typografii”, Gdańsk 2006

Ambrowe G., Harris P., „Twórcze projektowanie”, Wydawnictwo naukowe PWN, Warszawa 2007

Blender. Kompendium, Kamil Kukło, Jarosław Kolmaga 2010

Adobe Photoshop CS5/CS5 PL. Oficjalny podręcznik: Adobe Creative Team 2011

3ds Max. Biblia Kelly I. Muldrock 2012

Grafika wektorowa. Szkolenie podstawowe. Vonglitchka 2012

Czasopisma: 2+3D, Computer Arts, Graphic, Media Polska, PSD Photoshop, Communication Arts

Teaching aids

computer, scanner, tablet, projector, inkjet printer, 3D printer

Language of instruction

Polish; communication in English possible