



Course name	Creative Modelling of Space
Entity running the course	Faculty of Interior Architecture and Design
Entity for which the course has been prepared	Department of Interior Architecture
Course type	core / compulsory course
Year of study / semester, type of studies	Year I, sem. II, intermediate level, full-time bachelor's degree
ECTS credits	3 pts ECTS per semester
Academic tutor	Assoc. Prof. Jacek Kulig
Aim of the course	<ol style="list-style-type: none">1. Developing sensitivity, artistic awareness and basic knowledge about composition, structure and the process of constructing an object and its performance, using various techniques and technologies allowing for free artistic expression. Drawing, photography, visualization, animation.2. Developing ability to make independent decisions regarding strategic ways of developing the project; careful observation of the existing spatial context, recording, collecting, analyzing data from the 2 and 3D, adaptation and use of logical phenomena, materials, to consistently compose an essential part of the design expression of the creator - designer.3. Preparing to independently make a synthesis of the observed phenomena occurring in the context of the selected structures, aware of their transposition and selection of adequate means of artistic and material and technology in order to obtain informed and original design and artistic expression based on the appropriate aesthetic criteria and to prepare for the proper presentation and argumentation their choices creative design using modern presentation tools and information technology.4. Changing the habits from learning to conscious study.
Prerequisites	Having the first semester completed.

Learning outcomes:

- knowledge

Student has an elementary knowledge in the area of modelling architectural and urbanistic concepts, can recognize basic problems in the area of construction, can justify their design decisions. Student can apply their knowledge of composition and construction, correctly recognize it, classify, localize and select as well as correctly argue their choices and decisions in design.

- skills

Student has the ability to design space, understands and is able to make decisions on the interpretation of the design assumptions in graphic form and spatial. Can select, interpret, transpose, adopt, reorganize its conception in order to find an optimal solution given problem. Student can independently make design decisions, can closely observe nature, analyze and compare test reality, aptly synthesize phenomena and structures, properly to interpret and transpose consciously chosen means of artistic expression for expressing thoughts on the potential workshop and apply the relevant criteria and aesthetic original means of expression.

- personal and social competence

Student is able to independently integrate acquired knowledge and to take new and comprehensive actions in an organized way. Student is communicative, competent and ready to formulate a critical assessment and its argument. Can actually demonstrate, explain, compare, justify their own choices.

Course content

Task 1

Interpretation of 2D objects - transformations and multiplications (part 2) in urban scale.

Modeling

Material - examples of materials, methods, and technologies processing capabilities in the context of the project.

Greeking - making up the material, layout using 3D software, 3D printing, Tools - the method of use of tools during prototyping and modeling.

The experiment - experimental modeling, layout, combining processing - technological process.

Presentation

The argument - to prepare for the election arguments next phases of the project – continued.

Material - sketch, drawing, photography, visualization, model.

Tools - tools graphic (depending on the form of presentation).

Exercise 2

Family objects independent (part 2) in urban scale.

Modeling

Material - examples of materials, methods, and technologies processing capabilities in the context of the project.

Greeking - making up the material, layout using 3D software, 3D printing Tools - methods of using tools.

The experiment - experimental modeling, layout, combining processing - technological process.

Exercise 3

Variables, 3D structure (group tasks – part 1).

Modeling

Material - examples of materials, methods, and technologies processing

capabilities in the context of the project.
Greeking - making up the material, layout using 3D software, 3D printing
Tools - methods of using tools.
The experiment - experimental modeling, layout, combining processing - technological process.
Presentation
The argument - to prepare for the election arguments subsequent phases of the project.
Material - sketch, drawing, photography, visualization, model.
Tools – graphic tools.

Course form and number of course hours

Classes in laboratories, reviews, lectures, self-study, consultations.

Assessment methods and criteria

75% task execution / activity during classes / working reviews
25% open review of works

Assessment type

Examination review (summer semester)

Literature

Artheim Rudolf „Sztuka i percepcja wzrokowa -psychologia twórczego oka”; Munken Łódź 2004
Beneyus Janine M. Biomimicry. Innovation inspired by Nature,
Frutiger Adrian „Człowiek i jego znaki,” d2d; Kraków 2010
Francuz Piotr „Obrazy w umyśle, studia nad percepcją i wyobraźnią”, WN Scholar 2007
Hensel Michael „Techniques and Technologies in Morphogenetic Design”
Królikowski Wacław, Kłosowska-Wońkiewicz Zofia, Penczek Piotr „Żywice i laminaty poliestrowe”, WNT 2007
Lefteri Chris, „Material for Inspirational Desig”
Pielichowski J., Puszyński A. „Technologia tworzyw sztucznych WNT 2003 07

magazines
Form & Function
Detail

websites
andreagraziano.blogspot.com.tr/
artsandcomputing.wordpress.com
design.technology.com
fizyka.umk.pl
fizyka.umk.pl/~duch/Wyklady/Mozg/11-swiadomosc.htm
fstoppers.com
generativeart.com
glform.com/
mat-fab.com
materialconnexion.com
neuroaesthetics.net
sciarc.edu/

scientific.net/
terreform.org

Teaching aids

Access to professional workshop.

Language of instruction

Polish