INDUSTRIAL AND AGRICULTURAL BUILDING DESIGN

Course Svllabus Time: L Friday 14:45-16:15 P Friday 14:45-16:15 Course Code: PMTURB047CA Semester: Autumn 2018/2019 1. Location: PTE MIK, L A-218, P A-218

General Information:

BUILDING DESIGN I. Name of Course:

Course Code: PMTURNB046CA

Semester: Number of Credits: 3

Allotment of Hours per Week: 1 lectures, 1 practices **Evaluation:** Signature (with grade)

Prerequisites:

Instructors: András GREG, assistant lecturer

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Introduction, Learning Outcomes

The 'Building design I.' course is an introduction of the architecture for the Civil Engineer Bsc students. It tries to give a useful knowledge to the students' hand. The course focuses on the basics of the architectural design process and the creative procedure.

The course will focus on:

- Developing the ability to think intuitively and creatively
- Examine and exploring of meaning and rules of architecture and the space modification
- Clear architectural communication
- Carrying out within a specified time

General Course Description and Main Content:

This course serves as an introduction to the home environment and gives students a theoretical and practical basis for designing spaces and small scale residential buildings. To achieve this, lectures are given in the following topics: arrangement of space in a house, fixtures in a house, suitable floor plan layout of spaces, external appearance of the building (familiarisation with an emphasis on the deviations and differences depending on sitting arrangements), service requirements, types of residential buildings, and the history of residential buildings. In their semester assignment, students present the problems arising from mass formation and the sitting arrangements of buildings and during the practical sessions they prepare models and are taught techniques and tools of representation (drawing tools, methods and tools for modelling). This subject includes an architectural design project in the practical part (marked with a P) where students can practice and further develop the content of the lectures (marked with an L).

Students are required to complete design work relating to a space modulator task. The main project will be so-called a "space modulator" which has to be built from admixture of fundamental geometrical elements like lines, points, planes and solid forms. The proposed object is a simplified model of a building or just a free spatial experiment to explore the relationships between inside and outside of space and form. Furthermore, with this process you can analyze the condition of spatial aesthetic. "Space-modulator" is the ABC of the architectural and design spatial-problems. The plan, sections and elevation drawing is a requirement to the understanding.

The course includes:

- Regular (weekly) supervisions by an appointed Main Supervisor.
- TASK 1: Copy of a given singe family house architecture documentation by free-hand(floorplans, sections, elevation in A3 format) and organize the furnishings of the empty rooms.
- TASK 2: Space modulator task (selected number A/3 pages depending on the size of project, and a paper model)

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- 3D right-scale model made of paper, cardboard
- -Thickness of cardboard should be: 1mm, 2mm, and 3mm
- -Components of model: point, line, plane, cube, solid forms
- -Size of the model: 200 mm X 200mm X 200mm
- -The students will be required to explore several options before settling on one single idea. The development and refinement of ideas will happen during and between class periods.

Schedule:

1.	Introduction
2.	Lecture/Practice – In general about the architecture
2	
3.	Lecture/Practice – Words in the architecture/Task 1 and Task 2
4.	Lecture/Practice – The basics
5.	Lecture/Practice – Human – Dimensions and space requirements
6.	Lecture/Practice
7.	Lecture/Practice - Daylight, orientation
8.	Site trip
9.	Holiday
10.	Lecture/Practice— Residential buildings
11.	Lecture/Practice
12.	Lecture/Practice - Materials
13.	Lecture/Practice
14.	Lecture/Practice
15.	Design task presentation and submission

Attendance:

Attending is required all classes, and will impact the grade (max. 10%). Unexcused absences will adversely affect the grade, and in case of absence from more than 30% of the total number of lesson will be grounds for failing the class. To be in class at the beginning time and stay until the scheduled end of the lesson is required, tardiness of more than 20 minutes will be counted as an absence. In the case of an illness or family emergency, the student must present a valid excuse, such as a doctor's note.

Studio Culture:

The course is based on through collaboration, participation and discussions trough lessons. This is an interaction between Students and Faculty; used the teaching methods like 'Problem-based learning' and 'learning-by-doing'. The communication and work should be reflect a respect for fellow students and their desire to work with regard to noise levels, noxious fumes, etc – from each site of participants.

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Course Syllabus

Evaluation + Grading

Grading will follow the course structure with the following weight:

- 1. Class participation, class activity 10 % (5 points)
- 2. Task 1 30 %. (15points)
- 3. Task 2 60 % (30 points)

Grading scale

Numeric Grade:	5	4	3	2	1
Evaluation in	89%-100%	77%-88%	66%-76%	55%-65%	0-54%
points:					

- 5. Outstanding work. Execution of work is thoroughly complete and demonstrates a superior level of achievement overall with a clear attention to detail in the production of drawings, models and other forms of representation. The student is able to synthesize the course material with new concepts and ideas in a thoughtful manner, and is able to communicate and articulate those ideas in an exemplary fashion in.
- 4. High quality work. Student work demonstrates a high level of craft, consistency, and thoroughness throughout drawing and modelling work. The student demonstrates a level of thoughtfulness in addressing concepts and ideas, and participates in group discussions. Work may demonstrate excellence but less consistently than an '5' student.
- 3. Satisfactory work. Student work addresses all of the project and assignment objectives with few minor or major problems. Graphics and models are complete and satisfactory, exhibiting minor problems in craft and detail.
- 2. Less than satisfactory work. Graphic and modelling work is substandard, incomplete in significant ways, and lacks craft and attention to detail.
- 1. Unsatisfactory work. Work exhibits several major and minor problems with basic conceptual premise, lacking both intention and resolution. Physical representation in drawing and models is severely lacking, and is weak in clarity, craft and completeness.

Students with Special Needs:

Students with a disability and needs to request special accommodations, please, notify the Deans Office. Proper documentation of disability will be required. All attempts to provide an equal learning environment for all will be made.

Readings and Reference Materials:

Required:

- 1. Ching, F. (1996). Architecture: form, space, & order (2nd ed). New York: Van Nostrand Reinhold
- 2. Frampton, K. (2014): Modern Architecture: A Critical History (Fourth Edition) (World of Art) London: Thames and Hudson
- 3. Davies, C. (2006). Key houses of the twentieth century: plans, sections and elevations. London: Laurence King.
- 4. Laseau, P. (2001). Graphic thinking for architects & designers (3rd ed). New York: J. Wiley
- 5. Unwin, S. (2003). Analysing architecture (2nd ed). New York: Routledge.

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