Building Constructions I. Course Code: EPE108AN Semester: Fall 2018/2019 Course Syllabus Schedule: F, periods 1-4 Location: PTE MIK, A315 (lectures) / A007 (practical lessons)

General Information:

Name of Course:

Course Code: Semester: Number of Credits: Allotment of Hours per Week: Evaluation: Prereguisites:

BUILDING CONSTRUCTIONS I.

EPE108AN 1st 6 3 Practical Lessons and 1 Lecture / Week signature (with grade)

Instructors:

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Introduction, Learning Outcomes:

The course gives the students the theoretical and practical basics of architecture focusing on building structures. The aim is that students be able to understand and create the architectural documentation of a traditional building with proper quality. They also get to know the basic structural system of these buildings and why these structures are built, and what the exact functions of these structures are.

General Course Description and Main Content:

The course consists of lectures and practices. During the lectures students are introduced to basic architectural design methods and presentation of this design in the form of basic technical drawings. The students learn the basic terms and types of these drawings.

When an artificial space is designed it has to be protected against several environmental effects. Students get to know these effects and how we choose different kinds of building structures to create the needed protection. On the basis of the above mentioned the basic building structure systems are introduced to the students.

On the practical lessons students have to make different kinds of technical drawings about the topics introduced on the lectures. In the end they have to complete a simple architectural documentation of a traditional residential building.

The lectures include the following topics:

- Designing space and introducing our design
- Architectural technical drawing (drawing tools, types of drawing elements, scales, plan types)
- Environmental effects on buildings and how we guard the interior space and the building against these
- Basic building structures (foundations, walls, openings, slabs, stairs, roofs, covering types)

The practical lessons include the following topics:

- introduction of basic drawing tools
- technical writing, basic drawing elements

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- basic plan types (site plan, floor plan, section, elevation)
- simple architectural documentation of a traditional building

Methodology:

The course provides basic architectural skills based on lectures and individual architectural skills with regular consultations and presentations.

Schedule:

| | LECTURES | PRACTICAL LESSONS |
|---------|--|---|
| week 1 | - | introduction, basic drawing tools (drawing boards, rulers, pencils and pens, compasses, templates) |
| week 2 | introduction, designing space and introducing our thoughts: 3d and 2d drawings, scales, basic architectural plan types (site plans, floor plans, sections, elevations) | basic drawing elements first practical task (<i>deadline: week</i> <i>04</i>): technical writing, line and fill types |
| week 3 | - | consultation |
| week 4 | environmental effects on artificial space, how we protect the space against these - basic building structure systems | consultation, second practical task (<i>deadline: week 07</i>): creating sections and elevations |
| week 5 | - | consultation |
| week 6 | basic structures: foundations and walls | consultation, third practical task (<i>deadline: week 10)</i> : walls, brick bonding |
| week 7 | - | consultation |
| week 8 | basic structures: openings, slabs | consultation, fourth practical task (<i>deadline: week 11)</i> : openings |
| week 9 | - | (autumn break) |
| week 10 | basic structures: stairs | consultation, fifth practical task (<i>deadline: week 14)</i> : architectural documentation of a simple building |
| week 11 | - | consultation |
| week 12 | basic structures: roof systems | consultation |
| week 13 | - | test; consultation |
| week 14 | basic structures: covering solutions | consultation |
| week 15 | - | test retake (if needed); deadline for corrected drawings |

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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 side of participants.

Attendance:

Attending is required on 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 lessons 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.

If a practical task cannot be submitted till the deadline, it can be submitted one week after the original date. In this case however the highest possible points for late submissions of practical drawing tasks is the minimum point level.

Evaluation + Grading

Grading will follow the course structure with the following weight:

| Drawing task 01 | 10p | min. 5p |
|-----------------|-----|----------|
| Drawing task 02 | 10p | min. 5p |
| Drawing task 03 | 10p | min. 5p |
| Drawing task 04 | 10p | min. 5p |
| Drawing task 05 | 20p | min. 12p |
| Test | 30p | min. 17p |

Please note that attendance will adversely affect one's grade, both in direct grade reduction and in missing work in the development of a project. The final grade will be based on the following guidelines:

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 a '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.

Grading Scale:

| Numeric Grade: | 5 | 4 | 3 | 2 | 1 |
|----------------|-------|-------|-------|-------|------|
| Evaluation in | 79-90 | 69-78 | 59-68 | 49-58 | 0-48 |
| points: | | | | | |

PTE Grading Policy:

Information on PTE's grading policy can be found at the following location:

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:

Francis D. K. Ching: Architectural Graphics, Fifth Edition. Wiley, Hoboken, New Jersey, USA, 2009

Francis D. K. Ching: Building Structures Illustrated, Fifth Edition. Wiley, Hoboken, New Jersey, USA, 2014