# General Information:

Name of Course: Descriptive Geometry 1.

Course Code: EPE132ANEM

Semester: 1st

Number of Credits: 4

Allotment of Hours per Week: 2 Lecture and 2 Practical Lessons /Week

Evaluation: Exam

Prerequisites: -

Responsible lecturer: Réka SÁRKÖZI, assistant lecturer

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Instructors: Réka SÁRKÖZI, assistant lecturer

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## General Subject Description

This lecture and practical based course aims to develop the skills of architecture students regarding the following topics, in frame of descriptive geometry: Application of imagery methods used in architecture and by related branches of building industry and civil engineering, internalizing of switching among these in frame of the descriptive geometry. Detection and application of relation of sizes regarding projected elements by use of geometrical constructions, imagery and intersection of solids and polyhedrons.

The studied imagery methods of this course are bases of the conventional axonometric projections, central projection like central axial collineation, orthogonal projections like Monge-system and multi view orthographic projection as well as bases of the contour map system.

## Learning Outcomes

The course will focus on architectural drawing types, like Monge-system, axonometric views and the connection of these projection types. Students have to learn the rules of technical drawing, understand the spatial objects based on these drawings and be able to create technical drawings based on spatial objects.

## Subject content

Students are required to complete homeworks and 2 midterm tasks. Students have to participate on classes. They learn the theoretical bases on lecture and create drawings on the practical lessons. The participation on the lectures is inevitable to pass the course. The drawings created on the practical lessons are part of the homework, so the students work on the practical lesson will be also scored.

## Examination and evaluation system

*In all cases.* *Annex 5 of the Statutes of the University of Pécs, the* ***Code of Studies and Examinations (CSE) of the University of Pécs*** *shall prevail. https://english.mik.pte.hu/codes-and-regulations*

**Requirements in study period:**

The participation on the classes is obligatory. The maximum amount of the missed classes is 3 per semester due to the Study and Examination Regulations.

**Necessary tools for the practical lessons:**

three rulers: 1 linear, 2 perpendicular (45°, 30°-60°)

callipers (compass)

PRINTED EXERCISE SHEETS

pencil, colored pencils

**The exercises and scores of the semester:**

homework: max. 8\*5=40

1st midterm task: max. 30 min. 15

2nd midterm task: max. 30 min. 15

 max. 100 min. 50

**homework:**

deadline for maximum 5 points: next practical lesson

replacement for maximum 4 points: 2 weeks after deadline

**1st midterm task:**

deadline for maximum 30 points: 25th of October

replacement for maximum 25 points: 8th of November

**2nd midterm task:**

deadline for maximum 30 points: 13th of December

replacement for maximum 25 points: 20th of December

**If the student fulfills every requirement in the study period, it ends with an offered grade. If the student don’t accept the offered grade they have to take an exam. The student who doesn’t fulfill every requirement in the study period their signature will be denied.**

Grading Scale for the offered grade:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Numeric Grade: | 5 | 4 | 3 | 2 | 1 |
|  | A, excellent | B, good | C, avarage | D, satisfactory | F, Fail |
| Evaluation in points: | 85%-100% | 71%-84% | 60%-70% | 50%-59% | 0-49% |

**Requirements in exam period:**

If the student fulfills every requirement in the study period, and accepts the offered grade they have no other task in the semester. Students can replace the second midterm task in the first week of the exam period. If a student gets a signature but doesn’t accept the offered grade they have to take an exam.

**Exam:**

maximum: 30 points

minimum 15 points

The exam will contain solid’s intersection exercises in Monge-system.

The score of the exam will be added to the previous points, and the grade will be calculated based on that.

Grading Scale for the exam grade:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Numeric Grade: | 5 | 4 | 3 | 2 | 1 |
|  | A, excellent | B, good | C, avarage | D, satisfactory | F, Fail |
| Evaluation in points: | 85%-100%(111-130 p) | 71%-84%(93-110 p) | 60%-70%(78-92 p) | 50%-59%(65-77 p) | 0-49%(0-64 p) |

## Readings and Reference Materials

Minor Clyde Hawk, Schaum's Outline of Theory and Problems of Descriptive Geometry

Julia McMorrough, Drawing for Architects

Francis D. K. Ching, Architecture – Form, Space and Order

## Methodology

The course is based on lectures and practical lessons. The students have to solve tasks on the practice and on their own.

## Schedule

|  |
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| **Classes in the semester 2018/2019. II**: |
| Code | Teacher | Day/time | Place | Note |
| Lecture | Réka Sárközi | Monday 7:45-9:15 | A201 |  |
| Practice 1 | Réka Sárközi | Monday 9:30-11:00 | A316 |  |
| Practice 2 | Réka Sárközi | Monday 14:00-15:30 | A316 |  |

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| **Scedule of the semester** |
| **week** | **LECTURE** | **PRACTICE** |
| 1. | ORIENTATION DAY |
| 2. | Introduction. Projection types. Monge-system, Image of spatial elements. | Spatial element is Monge-system. |
| 3. | Parallelism, perpendicularity in the Monge-system. Position of lines, polygons. Image of solids. | Spatial elements, polygons and solids in Monge-system. |
| 4. | Axonometric drawing. Types of Axonometry. | Spatial elements in Axonometry. |
| 5. | Image plane transformation. New image plane in monge system. | Image plane transformation. New image plane in monge system. |
| 6. | Axonometry with transformation. | Axonometry with transformation. |
| 7. | Consultation about the 1st midterm task. Deadline: 29th of March. |
| 8. | Consultation about the 1st midterm task. Deadline: 29th of March. |
| 9. | AUTUMN BREAK |
| 10. | Solid’s intersection with image plane transformation. | Architectural drawing in Monge and Axonometry. |
| 11. | Planes in Monge-system. Piercing point and planes’ intersection. | Architectural drawing in Monge and Axonometry. |
| 12. | Solid’s intersection without transformation. | Architectural drawing in Monge and Axonometry. |
| 13. | Intersection of two solids. | Architectural drawing in Monge and Axonometry. |
| 14. | Consultation about the 2nd midterm task. Deadline: 17th of May. |
| 15. | Consultation about the 2nd midterm task. Deadline: 17th of May. |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| week | Monday | Tuesday | Wednesday | Thursday | Friday |
| **study period** |
| 1 | Orientation day |  |  |  |  |
| 2 | Lecture + Practice |  |  |  |  |
| 3 | Lecture + Practice |  |  |  |  |
| 4 | Lecture + Practice |  |  |  |  |
| 5 | Lecture + Practice |  |  |  |  |
| 6 | Lecture + Practice |  |  |  |  |
| 7 | Consultation |  |  |  |  |
| 8 | Consultation |  |  |  | 1st midterm task deadline |
| 9 | AUTUMN BREAK |
| 10 | Lecture + Practice |  |  |  | 1st midterm task replacement |
| 11 | Lecture + Practice |  |  |  |  |
| 12 | Lecture + Practice |  |  |  |  |
| 13 | Lecture + Practice |  |  |  |  |
| 14 | Consultation |  |  |  |  |
| 15 | Consultation |  |  |  | 2nd midterm task deadline |
| **exam period** |
| 1 |  |  |  |  | 2nd midterm task replacement |
| 2 |  |  |  |  |  |
| 3 |  |  |  |  |  |
| 4 |  |  |  |  |  |
| 5 |  |  |  |  |  |

We reserve the right to make changes to the details of this course syllabus (date / location / clarifications), which will be communicated to the students. In case of questions and problems that arise during the semester contact the responsible lecturer or the study program coordinator.

Réka SÁRKÖZI

responsible lecturer

Pécs, 26.08.2019