**Civil Engineering CAD I.**

**Code:** MK3CAD1S4SX17EN

**ECTS Credit Points:** 4

**Evaluation:** mid-semester grade

**Year, Semester:** 2nd year, 3rd semester

**Its prerequisite:** Descriptive Geometry, Civil Engineering Draw

**Further courses are built on it:** No

**Number of teaching hours/week**:

Lecture: 0

Practice: 4

**Topics**:

Making construction plans in ArchiCAD software. Settings of the program, applying styles for construction plans. Making foundation, reinforced concrete, steel and wooden construction plans.

Presentation of the history of CAD. Presentation of the screen. Giving the coordinates and drawing with coordinates. Introduction of draw (line, polygon, circle, arch, line chain, etc.) and draw modifying commands (erase, copy, mirror, array, move, rotate, etc.). Managing the layer and introduction of features, settings. Settings of the line type, context and dimension style. Usage of palettes and tools. Creating and using blocks and references. Introduction of inquiries. Presentation of draw settings, customizing and settings. Detailed presentation of drop-down boxes and toolbars. Usage of model space and paper space. Settings of printing and printing.

Making construction plans in AutoCAD software. Settings of the program, applying styles for construction plans. Making foundation, reinforced concrete, steel and wooden construction plans.

Presentation of the history of CAD. Presentation of the screen. Giving the coordinates and drawing with coordinates. Introduction of draw (line, polygon, circle, arch, line chain, etc.) and draw modifying commands (erase, copy, mirror, array, move, rotate, etc.). Managing the layer and introduction of features, settings. Settings of the line type, context and dimension style. Usage of palettes and tools. Creating and using blocks and references. Introduction of inquiries. Presentation of draw settings, customizing and settings. Detailed presentation of drop-down boxes and toolbars. Usage of model space and paper space. Settings of printing and printing.

**Literature:**

*Compulsory:*

ArchiCAD 17 help

[www.autodesk.com](http://www.autodesk.com), AutoCAD help

*Recommended:*

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**Schedule**

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| **1st week Registration week** | |
| **2nd week:**  **Practice:** Presentation of the history of CAD. Presentation of the screen.  Usage of palettes and tools. | **3rd week:**  **Practice:** Presentation of draw settings, customizing and settings. Detailed presentation of drop-down boxes and toolbars.  Giving the coordinates and drawing with coordinates. |
| **4th week:**  **Practice:** Introduction of draw (line, polygon, circle, arch, line chain, etc.) and draw modifying commands (erase, copy, mirror, array, move, rotate, etc.). | **5th week:**  **Practice:** Drawing practice. |
| **6th week:**  **Practice:** 1st test | **7th week:**  **Practice:** Presentation of draw settings, customizing and settings, drawing slab plan. |
| **8th week: 1st drawing week** |  |
| **9th week:**  **Practice:** 2nd test | **10th week:**  **Practice:** Presentation of draw settings, customizing and settings, drawing ground plan. |
| **11th week:**  **Practice:** Settings of printing.  Semester summary. | **12th week:**  **Practice:** Drawing practice. |
| **13th week:**  **Practice:** 3rd test | **14th week:**  **Practice:** Repeat test. |
| **15th week: 2nd drawing week** | |

**Requirements**

**A, for a signature:**

Participation at practice is compulsory. Students must attend the practice classes and may not miss more than three times during the semester. In case a student does so, the subject will not be signed and the student must repeat the course. Students can’t make up a practice class with another group. Attendance at practice will be recorded by the practice leader. Being late is counted as an absence. In case of further absences, a medical certificate needs to be presented. Missed practices should be made up for at a later date, to be discussed with the tutor. Students are required to bring the drawing tasks and drawing instruments for the course with them to each practice. Active participation is evaluated by the teacher in every class. If a student’s behaviour or conduct doesn’t meet the requirements of active participation, the teacher may evaluate his/her participation as an absence due to the lack of active participation in class.

Students have to submit all the six drawing tasks as scheduled minimum on a sufficient level.

**B, for a grade:**

The course ends in mid-semester grade.

The minimum requirement for the mid-term and end-term tests is 60%. Based on the score of the tests separately, the grade for the tests is given according to the following table:

Score Grade

0-59 fail (1)

60-69 pass (2)

70-79 satisfactory (3)

80-89 good (4)

90-100 excellent (5)

If the score of any test is below 60, the student can't take any repeat test.