Macrosoft

Vzdelávanie s trvalým efektom

DOCUMENT

Course syllabus

CATEGORY

3D graphics, CAD courses

TRAINING FORMAT

In Bratislava or online with a lecturer

PRICE EXCL. VAT

948,13 €

PRICE INCL. VAT

1 166,20 €

including 23 % VAT

PDF SYLLABUS

Designer in AutoCAD - Complex Skills

Clear overview of course topics, training scope and key information.

The retraining course IT Architect, Designer in AutoCAD - Complex Skills is intended for those interested parties who want to find employment in fields that require comprehensive control of Autodesk AutoCAD programs at a professional level. The package consists of courses: AutoCAD I with a time scope of 2 days AutoCAD II with a time scope of 2 days
Introduction to Autodesk Inventor I with a time scope of 1 day AutoCAD Mechanical with a time scope of 2 days
Only the course start is shown in the date; we will inform you about the other dates.

COURSE CONTENT

01

Description of the Autodesk AutoCAD Environment

working with the ribbon of command tabs and in model space working in a drawing template - layout meaning of individual mouse buttons in AutoCAD navigation within the model environment: zoom in, zoom out, move zoom and pan working with files: opening and saving files, opening templates and creating a template

02

Basic Settings

customizing the user interface: automatic saving period, cursor settings, screen color, etc. setting drawing units

03

Method of Entering Commands

entering commands through icons and entering commands through command shortcuts rewriting command shortcuts within a text file

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04

Basic Functions in the Status Bar

displaying point position coordinates auxiliary commands - Snap, Grid, Ortho, Polar Tracking, Object Snap, Tracking, Dynamic Input...

05

Object Selection and Drawing

selecting objects individually and selecting using a selection window adding and removing objects from an existing selection basic drawing commands - Line, Curve, Circle, Arc, Ellipse, Point... entering object dimensions and checking them basics of hatching

06

Editing Commands and Measuring Tools

Move, Copy, Stretch, Rotate, Mirror, Scale, Array, ... tools for measuring distance, angle, radius, area and volume

07

Basics of Working with Layers

explanation of principles of using layers adding new layers setting layer properties and editing them - color, line type, lineweight deleting existing layers

08

Basics of Working with Blocks and Groups

explanation of the difference between a block and a group creating a block, options for using a block and managing a block library editing a block

09

Text

single-line and multi-line text setting properties and editing text

10

Basics of Dimensioning

dimensions - linear, aligned, angular, arc length, radius, diameter, jogged and station dimension setting the dimension style commands: Break, Set Gap, Quick Dimension from Baseline, Chain Dimension, Update, etc.

11

Drawing Setup and Print Preparation

creating viewports setting the drawing format and viewport scale and preparing for printing in the form of a PDF file practical exercises for acquiring skills

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12 **Advanced Drawing Techniques**

polyline and its more detailed use quick snap modes advanced hatching techniques efficient angle entry quick selection and benefits of use use of parametric constraints temporary point tracking

13 **Advanced Editing Techniques**

commands Break, Break at Point, Join, Edit Curve, Edit Hatches, Edit Array, etc.

14 **Advanced Dimensioning Techniques**

detailed overview of dimensioning functions annotative dimensioning

15 **Advanced Work with Layers**

selecting layers according to specific criteria and filtering layers

16 **Creating Tables**

setting, creating and editing a table export, import of tables linking tables with Excel

17 **Express Tools**

overall overview of functions creating your own line type and hatch

18 **Advanced Work with Blocks and Descriptive Attributes**

creating dynamic blocks and editing them creating descriptive attributes for a block pairing AutoCAD and Excel data

19 **Using Design Center**

searching in Design Center taking blocks, dimension style, layers, layouts, line types, tables, texts, etc. from one drawing to another drawing through Design Center inserting ready-made blocks cooperation between Design Center and Tool Palettes

20 **Import and Export**

raster images OLE objects inserting texts from Word external references

21

Management of the AutoCAD Environment

setting the user interface according to your own needs basics of using the programming functions Script, LISP and Macro

22

Inventor - Introduction

Explanation of the concept of parametric modeling Explanation of the concept of digital prototyping Explanation of used file types for part, assembly and drawing Explanation of basic elements (model coordinate system, sketch, elements for creating surfaces and volumes), creating a part and checking unit settings. Creating a sketch, basic sketch elements (lines, arcs, axes and construction elements) Degrees of freedom, automatically created constraints during drawing and sketch diagnostics Explanation of what a reference is (link to another element), problems related to using the function of projecting model elements into a sketch, mainly with regard to future model edits.

23

AutoCAD Mechanical

What AutoCAD MECHANICAL is Comparison of AutoCAD Mechanical and AutoCAD LT Comparison of versions Usability of CAD programs

24

Program Working Environment

Customizing the working environment Changing environment colors Saving the working interface Units and standardization

25

Introduction to Drawing

Drawing lines Control points and changing their position Drawing dimensions and angles Drawing with the help of a coordinate grid Selecting entities and objects Navigation in the drawing Setting point snapping OSNAP and tracking Explanation of working with the command line

26

Drawing Tools Panel

Basic principles of drawing Using Line, Circle, Spline, Rectangle commands Using Arc, Ellipse, Construction Line commands Using Revision Cloud commands

27

Modification Tools Panel

Selecting objects for editing Using Erase, Copy, Move, Rotate, Offset, Mirror, Scale, Join, Explode commands

28

Layers

Principles of working with layers Layer properties manager Creating new layers Editing existing layers Import export of layers

29

Hatch and Gradient Hatching

Method of selecting the hatched area Setting hatching parameters Editing an existing hatch or gradient

30

Automatic Hole Creation

Understanding creation of holes and sections Filling in the settings table Creating an axis according to the view Changing the size of an existing hole Using Automatic construction line Creating a table with exact description and coordinates of holes

31

Inserting Standardized Elements

Understanding standardization in the program Setting standardization Procedure for inserting components depending on the given construction Selecting a suitable component

32

Dimensions and Annotations in the Drawing

Setting the welding annotation Setting the Leader, Tolerance, Balloons, Welding command Texts and their use Dimensions and their settings Automatic dimensioning Automatic setting of Part Reference

33

Drawings and Their Management

Setting the Title Border command Manual creation of a drawing Setting drawing Layers tabs Creating your own drawing using Layers

34

Printing and Its Settings

Setting a suitable format Setting print quality Check before printing Printing

35

Specific Hardware Requirements for the Course in Case of Online Training on Own Device:

AutoCAD I.
CPU: Intel I5 / AMD Ryzen 5
RAM: 8GB
GPU: 4GB NVIDIA/AMD/QUADRO/FIREPRO
AutoCAD II.
CPU: Intel I5 / AMD Ryzen 5
RAM: 8GB
GPU: 4GB NVIDIA/AMD/QUADRO/FIREPRO
AutoCAD 3D
CPU: Intel I7 / AMD Ryzen 7
RAM: 8GB
GPU: 4GB NVIDIA/AMD/QUADRO/FIREPRO

This document serves as an informational overview of the course syllabus. Current dates, venue and availability are listed at Macrosoft.sk.

https://www.macrosoft.sk/en/courses/designer-in-autocad-complex-skills