Course : AutoCAD - 2D Drawing - Introduction

Practical course - 4d - 28h00 - Ref. AUE
Price : 2160 CHF E.T.

NEW

La maîtrise d'AutoCAD est aujourd'hui indispensable pour toute personne amenée à concevoir, modifier ou exploiter des dessins techniques dans un cadre professionnel. Cette formation a été conçue pour accompagner techniciens, dessinateurs, projeteurs ou ingénieurs dans l'acquisition des compétences fondamentales en dessin 2D. Ils apprendront à créer, organiser et annoter des plans précis, à structurer leurs projets selon les normes en vigueur et à produire des documents exploitables et prêts à l'impression.

Teaching objectives

At the end of the training, the participant will be able to:

- Get to grips with the AutoCAD interface and understand the principles of 2D technical drawing
- Create, modify and organize simple drawings using drawing, editing and layer tools
- Annotate drawings using text, dimensioning and marking tools
- Create a page layout to scale and export the drawing to a file or plotter

Intended audience

Manufacturing technicians, draughtsmen, project designers, design engineers, design office managers, anyone dealing with technical drawings.

Prerequisites

Basic knowledge of the Windows environment.

Course schedule

1 Introduction to the AutoCAD interface

- Discover the graphical interface and help.
- Manage workspaces and tool palettes.
- File formats and project organization.

Exercise
Workspace customization.

PARTICIPANTS
Manufacturing technicians, draughtsmen, project designers, design engineers, design office managers, anyone dealing with technical drawings.

PREREQUISITES
Basic knowledge of the Windows environment.

TRAINER QUALIFICATIONS
The experts leading the training are specialists in the covered subjects. They have been approved by our instructional teams for both their professional knowledge and their teaching ability, for each course they teach. They have at least five to ten years of experience in their field and hold (or have held) decision-making positions in companies.

ASSESSMENT TERMS
The trainer evaluates each participant's academic progress throughout the training using multiple choice, scenarios, hands-on work and more.
Participants also complete a placement test before and after the course to measure the skills they've developed.

2 Drawing and editing tools Duration

- Create simple 2D objects (lines, circles, arcs, polylines).
- Object selection and property management.
- Basic commands: copy, move, delete, stretch, symmetry.

Exercise

Produce a simple drawing of a mechanical part (basic geometric shapes). Use different selection methods (window, cross, properties). Create a complete sketch, then modify it using transformation tools.

3 Geometric construction and precision

- Object attachment modes: end, middle, center, perpendicular, parallel, close.
- Markers and magnetic markers.
- Relative/absolute and rectangular/polar coordinate systems.
- Create drawings with dimensions.

Exercise

Produce a 2D drawing of a part with precision constraints (perpendicular, tangent, parallel). Use polar coordinates to draw a technical drawing. Reproduce a geometric model within dimensioning tolerances.

4 Advanced editing tools

- Offset, rotation, scale, joint, chamfer.
- Complex object management.
- Multilines and associated scales.

Exercise

Transform an existing drawing by changing its proportions (rotation, scale). Apply joints and chamfers to normalize the edges of a part. Create a revised version of an existing drawing by applying corrections.

5 Organizing and dressing complex plans

- Calques : utilisation et paramétrage.
- Texte et styles. Cotations linéaire, angulaire et alignée.
- Cotation intelligente. Hachurage, paramétrage et exploitation.
- Internal block creation. Custom/external libraries.

Exercise

Draw and dress a plan. Automatic creation of measurements according to the drawing context.

6 The blocks

- Links between blocks and layers.
- Define and associate block attributes.
- Design center and blocks.
- Data extraction from block attributes.

Exercise

Create an interactive title block with blocks and attributes.

TEACHING AIDS AND TECHNICAL RESOURCES

• The main teaching aids and instructional methods used in the training are audiovisual aids, documentation and course material, hands-on application exercises and corrected exercises for practical training courses, case studies and coverage of real cases for training seminars.
• At the end of each course or seminar, ORSYS provides participants with a course evaluation questionnaire that is analysed by our instructional teams.
• A check-in sheet for each half-day of attendance is provided at the end of the training, along with a course completion certificate if the trainee attended the entire session.

TERMS AND DEADLINES

Registration must be completed 24 hours before the start of the training.

ACCESSIBILITY FOR PEOPLE WITH DISABILITIES

Do you need special accessibility accommodations? Contact Mrs. Fosse, Disability Manager, at psh-accueil@orsys.fr to review your request and its feasibility.

7 Templates

- Existing templates. Template creation.
- CAD standards and templates manager.
- Check a file against the CAD standard.

Exercise

Create a template based on the graphic charter and CAD standards. Create a customized template including: standardized layers, text styles, dimensioning styles. Check the conformity of a drawing with the applied CAD standard.

8 Presentation and layout

- Outils de mise en page et format DWG à PDF. L'espace objet et l'espace papier.
- Usage des fenêtres de présentation. Le multifenêtrage.
- Édition de plans : l'imprimante et le traceur.
- Diffusion électronique. Fichiers PDF améliorés.
- Attach PDF files to drawings.

Exercise

Print plans in PDF format.