Publication date : 11/18/2024

Course : SolidWorks, 2D and 3D industrial product design

Practical course - 4d - 28h00 - Ref. LIW
Price : 1940 CHF E.T.

SOLIDWORKS is 3D computer-aided design software. You'll discover its features and learn how to use them effectively for your design work. Among other things, you'll see how to create parts and assemblies, and the associated drawings.

Teaching objectives

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

- Discover the SOLIDWORKS interface
- Apply the three volume-generating functions
- Evaluate key business-oriented functions
- Create parts, assemblies and associated drawings

Intended audience

Managers, architects, engineers, technicians, draughtsmen, drawing designers in design offices involved in creating and modifying drawings.

Prerequisites

Good knowledge of a graphical operating system. Experience required.

Course schedule

1 Introduction to 2D and 3D interface and sketching

- System and work document setup options.
- Reference geometries, planes, axes, standard and isometric views.
- Design and sketching techniques.
- Sketch quotation.
- Modify sketch entities, copy, move, rotate, scale, symmetrize.

Hands-on work
Sketch a switch plate.

PARTICIPANTS
Managers, architects, engineers, technicians, draughtsmen, drawing designers in design offices involved in creating and modifying drawings.

PREREQUISITES
Good knowledge of a graphical operating system. Experience required.

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 3D modeling and functions

- Modeling functions for extrusion, revolution, smoothing and scanning.
- Modelling functions for adding or removing material.
- Functions for creating joints, chamfers, shells, ribs and undercuts.
- Functions for creating rectangular and polar networks.
- Functions for creating simple holes and holes with the assistant.

Hands-on work
Model a steam connecting rod.

3 Create and modify a 3D assembly

- Inserting parts into an assembly.
- Component movement, rotation and positioning constraints in assembly.
- Create parts and edit assembly components.
- Interference detection.
- Creating and using exploded views.
- Analysis of the creation tree in assemblies.

Hands-on work
Designing a bottle for athletes.

4 Layout

- Create and modify 2D layouts with two sheets.
- Create standard, projected, cross-section and sectional views.
- Insert dimensions for part and assembly.
- Know how to dimension a drawing according to standards.
- Setting up BOM and cartridge data.
- Frame/cartridge customization.

Exercise
Create an overview and an exploded view.

5 Realistic rendering and animation

- Create and modify a scene with materials.
- Create and modify a scene with light.
- Create and modify scenes with decals.
- Develop component movements with multiple parts from a key and key images.

Hands-on work
Exercise and end-of-course project.

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.

Dates and locations

REMOTE CLASS
2026 : 17 Mar., 23 June, 6 Oct., 8 Dec.