Publication date : 04/12/2024

Course : AutoCAD 3D, getting started

version 2017/2016/2015 - Optional remote TOSA® certification

Practical course - 3d - 21h00 - Ref. UTP

Price : 1390 € E.T.

4,8 / 5

You'll master the 3D drawing functions and techniques of AutoCAD 2017/2016/2015. You'll learn how to model and edit 3D projects, and create CG animations and renderings.

Teaching objectives

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

- Discover AutoCAD's 3D working environment
- Understand AutoCAD's 3D drawing functions
- 3D modeling of mechanical parts
- Designing views
- Create and modify 3D projects

Intended audience

Managers, architects, engineers, technicians, draughtsmen and designers in design offices involved in producing and modifying 3D drawings.

Prerequisites

Good knowledge of AutoCAD 2D version 2010-2016 or knowledge equivalent to that provided by the course "AutoCAD 2D 2017/2016/2015, getting started" ref. ATD.

Practical details

Hands-on work

Discussions, experience sharing, demonstrations, tutorials and case studies.

Teaching methods

Active pedagogy based on examples, demonstrations, experience sharing, case studies and assessment of learning throughout the course.

Course schedule

PARTICIPANTS

Managers, architects, engineers, technicians, draughtsmen and designers in design offices involved in producing and modifying 3D drawings.

PREREQUISITES

Good knowledge of AutoCAD 2D version 2010-2016 or knowledge equivalent to that provided by the course "AutoCAD 2D 2017/2016/2015, getting started" ref. ATD.

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.

1 Introduction

- Get to grips with AutoCAD's 3D environment.
- General Coordinate System: GCS.
- User Coordinate System: UCS.
- Gizmos (local coordinate system).
- Define a new 3-point UCS.
- Adapt UCS to a non-orthogonal plane.
- Object tracking and polar tracking.
- Dynamic User Coordinate System: SCUD.

Hands-on work

Demonstration of AutoCAD 2017/2016/2015 features.

2 Visualization

- Predefined views.
- Create and manipulate views.
- Multi-indexing.
- Orbit, free orbit and continuous orbit.
- Panning, navigation, movement.

Hands-on work

Designing a view.

3 Modeling

- Wired 3D objects.
- Create and assemble 3D solids.
- 3D primitives. Polysolid.
- Create solids and surfaces from lines or curves.
- Extrusion, Sweep, Revolution and Smoothing.
- Create 3D meshes. Work with faces, edges and vertices. Smooth and refine meshes.
- Create a cutting plan.
- Generate 2D from a 3D model. Create a section.

Hands-on work

Modeling a 3D mechanical part.

4 2D and 3D object modifications

- 3D surface editing and modification.
- Edit and modify 3D solids.
- Edit and modify 3D meshes.
- 3D displacement, 3D rotation and 3D symmetry.
- Extrude faces, move and offset faces, erase and copy faces, rotate, erase and color faces.
- 3D rectangular grid and 3D polar grid.
- Gizmo: move, rotate and scale in 3D.
- Boolean operations: union, subtraction, intersection, interference.

Hands-on work

Creation of a steam engine connecting rod.

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.

5 Visual styles

- Visual style 2D Wireframe, Conceptual, Shaded with Edges, Masked and Realistic.
- Export a new visual style.
- Bring out the details of designs with visual enhancements such as line blurring.
- Rendering quality. Ray tracing.
- Save rendering.

Hands-on work
Construction of a 3D studio. Modeling of a sofa and table with chairs.

Options

Certification : 80 € HT

La certification TOSA® atteste pour une durée de 3 ans des compétences de l'apprenant sur une échelle de 1 000 points. Le diplôme TOSA® est envoyé si le score de l'apprenant est supérieur à 551 points. Une fois l'examen réalisé, l'apprenant peut consulter en direct ses résultats et reçoit par e-mail une attestation, une restitution détaillée de ses compétences ainsi que son diplôme sous 5 jours. L'examen dure 1 H 00 et se présente sous la forme de 35 exercices alternant entre des manipulations sur le logiciel et des QCM, dont la difficulté s'adapte selon les réponses de l'apprenant. Sans demande spécifique, il est dispensé par défaut en français et sur la version logicielle la plus récente. La surveillance est faite par un logiciel et est enregistrée à des fins de contrôle de conformité.

The certification option comes in the form of a voucher or invitation that will allow you to take the exam at the end of the training course.

Dates and locations

REMOTE CLASS
2026 : 16 Mar., 17 June, 30 Sep., 25 Nov.

PARIS LA DÉFENSE
2026 : 16 Mar., 17 June, 30 Sep., 25 Nov.