

AVEVA E3D

Target Audience

- Civil, Mechanical, Electrical, and Piping Engineers working in EPC projects
- BIM / PDMS / E3D Designers and Modelers (Beginner to Intermediate level)
- AVEVA E3D Administrators, Project Coordinators, and Lead Designers
- Engineering Graduates aiming for Plant Design, Oil & Gas, Power, and Process industries
- Professionals transitioning from PDMS to AVEVA E3D

Course Objectives

This course aims to provide end-to-end practical knowledge of AVEVA Everything E3D, covering project administration, catalogue creation, specification management, 3D modelling, and drawing extraction. Participants will learn how to configure projects, manage databases and users, create industry-standard catalogues, and develop intelligent 3D models. The course emphasizes real project workflows, best practices, and industry standards used in large-scale EPC projects.

Course Outcomes

After completing this course, participants will be able to:

1. Create, configure, and manage AVEVA E3D projects, users, teams, and databases independently
2. Develop and maintain piping, structural, and electrical catalogues & specifications using Paragon
3. Perform multi-discipline 3D modelling including equipment, piping, structure, supports, HVAC, and cable trays
4. Configure Isodraft and Draw Admin for automated isometric and drawing extraction
5. Deliver quality-controlled models, drawings, and reports aligned with EPC and BIM standards

Course Outline

The course comprises **80-hours** of theory and labs and is divided into **8** different Modules. Each chapter will be followed by hands-on lab exercises to reinforce learning and gauge understanding of the topics covered.

Table of Contents

Module 1: Introduction to AVEVA Everything E3D

- Overview of AVEVA E3D ecosystem and modules
- Project lifecycle and data flow
- Roles and responsibilities in an E3D project

Module 2: AVEVA E3D Administration

- Project creation and configuration
- Team and user management
- NT authentication and access control rights (ACR)
- Database creation, multiple databases, DB ranges
- Database merging, backtracking, and reconfiguration
- Project locking, claim expunges, and project expunges
- Extract controls, date & stamp, font management
- DICE reports and database validation
- Creating UDAs in Lexicon

Module 3: AVEVA Paragon – Catalogue & Specification Management

- Introduction to Paragon and catalogue philosophy
- Table World fundamentals
- Nominal bore, branch, and reducer tables
- Piping catalogues and piping specifications
- Bolt specifications (old and new methods)
- Insulation specification setup
- Structural catalogue and structural specifications
- Cable tray catalogue and specification
- MDS customization concepts

Module 4: Isodraft Administration

- Isodraft environment and project setup
- Option file creation and control
- Template settings for piping isometrics
- MTO configuration and customization
- Isometric extraction workflows

Module 5: Draw Administration

- Draw admin setup and drawing standards
- Backing sheet and title block creation
- Representation rules and styles
- SYMBOL template creation
- Manual and auto tagging configuration

Module 6: AVEVA E3D Design – Modelling

- Design module interface and workflows
- Equipment modelling techniques
- Piping modelling using specifications
- Structural modelling (frames, members, grids)
- Pipe support modelling
- Cable tray modelling
- HVAC duct modelling

Module 7: Drafting & Extraction

- Isometric generation and review
- General arrangement drawings
- Annotation, dimensioning, and tagging
- Drawing revisions and updates

Module 8: Project Delivery & Best Practices

- Model checking and quality control
- Coordination between disciplines
- Final deliverables and handover
- Industry best practices and lessons learned