



*Hands on, Measurable
Training Programs*

Composites Manufacturing & CATIA Fiber Modeler

Course Code	EDU-CAT-E-CPM-F, CATIA Fiber Modeler
Brand	V5R25 (V5-6R2015)
Duration	3 days
Level / Audience	Fundamentals / Those responsible for manufacturing composite parts.
Prerequisites	CATIA Fundamentals and CATIA Surface Design Fundamentals.

Objectives:

In this course students will learn how to produce composites manufacturing information from CATIA models containing OEM information added with the Composite CPD and CPM workbenches. CATIA Fiber Modeler (formerly Simulayt Advanced Fiber Modeler) will be used to analyze complex surfaces seen in the aerospace, helicopter and motorsport industries.

Class Structure:

Composite Part Manufacturing topics:

- Composites Catalog
- Laminate Parameters
- Manual Plies Creation
- Plies Group
- Core creation
- Ply Exploder
- 3D Sections
- On the Fly Composites Information
- Numerical Analysis
- Core Sample
- Symmetry Creation
- Interactive Ply Table
- Ply Table
- Import and Ply Table Creation
- Drawing
- Mirror Part
- Manufacturing Data Structure
- Manufacturing Surface Swapping
- Edge Of Part
- Material Excess
- Multi Splice Creation
- Butt Splice - No Splice

- Producibility Analysis
- Inspection tool Darts
- Flattening
- Geometry transfer
- Synchronization
- Ply Export
- Ply Book

CATIA Fiber Modeler topics:

- Introduction to Fiber Simulation
 - Why Fiber Simulation?
 - Surface Geometries
 - Material Models
 - Propagation Modes
 - Operation in CATIA
- Constraint on Fibers
 - Seed/Guide Curve
 - Order of Drape Region
- FE Flattening
 - Material Model
 - Simulation Principles
 - Comparison with Geometric Fiber Simulation