Dassault Systèmes University | Course Catalog

V5R20

September 2010 Edition

DASSAULT SYSTEMES

CATIA - Virtual Design

Cross-Brand

DELMIA - Digital Manufacturing and Production

ENOVIA - Collaborative Innovation

SIMULIA - Realistic Simulation

CATIA - Virtual Design

CATIA Analysis

	CATIA V5 Analysis (V5A)
Course Code	CAT-en-V5A-F-V5R20
Available Release	V5R20
Duration	8 hours
Course Material	English
Level	Fundamental
Audience	Mechanical Designers, Structural Analysts
Description	This course will introduce the concepts and benefits of Finite Element Analysis and the general analysis process. It will teach you how to prepare a model for analysis, create 1D, 2D and 3D FE models, and compute a simple static analysis for a single part or an assembly.
Objectives	Create a Finite Element Analysis model - Prepare a solid or surface model for analysis - Create 1D, 2D and 3D meshes for beam, surface, and solid models - Assign properties, loads and constraints, and define assembly connections - Compute an analysis for a part or an assembly - Generate and display analysis results
Prerequisites	CATIA V5 Fundamentals
Available Online	Yes

	ELFINI Structural Analysis (EST)
Course Code	CAT-en-EST-F-V5R20
Available Release	V5R20
Duration	8 hours
Course Material	English
Level	Fundamental
Audience	Mechanical Designers
Description	This course will teach you how to use the advanced functionalities provided by the ELFINI Solver. It will also guide you on how to use these functionalities in the overall FEA process. Additionally, you will learn about new analysis types such as Buckling Case, MultiLoads Case, Transfer of Loads and Solution, etc. You will also learn how to use advanced capabilities for post-processing of results.
Objectives	Upon completion of this course you will be able to: - Use the advanced pre-processing capabilities (such as loads and boundary conditions) to create more realistic FE models - Visualize the images of objects used for pre-processing (which is not possible in GPS) - Use advanced case features (such as Buckling, MultiLoads, Envelope) in addition to the standard Static and Frequency cases - Create your own result image templates, customize the post-processing result images, group selective entitites in the result images, and create advanced reports
Prerequisites	Students attending this course should have the knowledge of Generative Part Structural Analysis Fundamentals, Generative Assembly Structural Analysis, FEM Surface Meshing
Available Online	Yes

	FEM Solid (FMD)
Course Code	CAT-en-FMD-F-V5R20
Available Release	V5R20
Duration	4 hours
Course Material	English
Level	Fundamental
Audience	Mechanical Designers
Description	This course introduces you to the various functionalities available with the FEM Solid (FMD) license in CATIA. You will learn how to a create 3D mesh from existing 2D mesh parts with the help of functionalities such as Tetrahedron Filler, Sweep3D, mesh part transformations, and mesh part extrusion. You will also learn how to directly generate a 3D mesh using OCTREE Tetrahedron Mesher. You will learn how to analyze the generated 3D mesh using the available mesh quality criteria, and how to import/export the meshes into/from CATIA.
Objectives	Upon completion of this course you will be able to: - Use different solid meshers such as Tetrahedron Filler, OCTREE Tetrahedron Mesher, Sweep3D Mesher - Create a solid mesh using mesh part transformations like Translation, Rotation, and Symmetry on 3D mesh parts - Analyze the solid meshes using the available mesh quality criteria - Import/Export the meshes into/from CATIA
Prerequisites	Generative Part Structural Analysis Fundamentals,Generative Part Structural Analysis Expert, Generative Assembly Structural Analysis, FEM Surface Meshing
Available Online	Yes

FEM Surface (FMS)

Course Code	CAT-en-FMS-F-V5R20
Available Release	V5R20
Duration	16 hours
Course Material	English
Level	Fundamental
Audience	Mechanical Designers
Description	This course will teach you how to create and edit meshes using Beam Mesher, OCTREE Triangular Mesher, Surface Mesher and Advanced Surface Mesher. You will learn how to create meshes from existing meshes using mesh transformations. You will also learn how to create different types of Welding Meshes. This course will teach you how to make use of knowledgeware parameters while creating Surface Meshes. Additionally, you will learn how to analyze the mesh quality using the available mesh quality checks.
Objectives	Upon completion of this course you will be able to: - Use the various Meshers such as Surface Mesher, Advanced Surface Mesher, Beam Mesher, and OCTREE Triangle Mesher - Create a new mesh using existing mesh with the help of mesh transformation tools and mesh operators - Edit the mesh using the mesh edition tools available within the above mentioned meshers - Analyze the mesh quality using mesh quality checks and tools like Free Edges, Duplicate Elements, Duplicate Nodes, Mesh Interference Checks, etc.
Prerequisites	Generative Part Structural Analysis Fundamentals, Generative Assembly Structural Analysis
Available Online	Yes

Generative Assembly Structural Analysis (GAS)

Course Code	CAT-en-GAS-F-V5R20
Available Release	V5R20
Duration	8 hours
Course Material	English
Level	Fundamental
Audience	Mechanical Designers
Description	This course will teach you how to perform a Finite Element Analysis using an existing assembly. You will learn how to create connections between assembly components and how to assign appropriate connection properties. You will also learn how to create an analysis assembly from existing meshed parts.
Objectives	Upon completion of this course you will be able to: - Understand and differentiate between various types of hypotheses that are used for creating an assembly analysis - Define analysis connections between assembly components - Use existing assembly constraints to automatically create analysis connections - Assign a connection property to the appropriate analysis connection - Compute a static analysis for an assembly - Create and manage an analysis assembly model using existing meshed parts
Prerequisites	Students attending this course should have knowledge of CATIA V5 Fundamentals, Generative Part Structural Analysis Fundamentals courses
Available Online	Yes

Generative Dynamic Response Analysis (GDY)

Course Code	CAT-en-GDY-F-V5R20
Available Release	V5R20
Duration	4 hours
Course Material	English
Level	Fundamental
Audience	Structural Analysts
Description	This course will teach you how to perform a harmonic or transient analysis on a single part using finite elements. You will learn how to generate and visualize 2D graphical results and how to export the resulting data in Text or Excel format.
Objectives	Upon completion of this course you will be able to: - Understand and differentiate between harmonic and transient analyses - Define the load and restraint excitations - Define the correct prerequisites for an excitation case - Visualize and animate the 3D images of the analysis results - Generate the translation, velocity, and acceleration graphs - Export the results data in Text or Excel format
Prerequisites	Students attending this course should have knowledge of CATIA V5 Fundamentals and Generative Part Structural Analysis Fundamentals
Available Online	Yes

Generative Part Structural Analysis Expert (GPE)

Course Code	CAT-en-GPE-A-V5R20
Available Release	V5R20
Duration	8 hours
Course Materials	English , French , German , Japanese
Level	Advanced
Audience	Mechanical Designers
Description	This course will teach you how to use advanced Finite Element Analysis pre-processing techniques and post-processing tools, including the concept of defining virtual parts to avoid excessive geometric modeling. You will learn how to perform frequency analysis on a single part, and how to use adaptive meshing to achieve pre-defined accuracy.
Objectives	Upon completion of this course you will be able to: - Define and customize the material properties of the parts to be analyzed - Apply pressure, acceleration, and force density loads - Define virtual parts to simplify the analysis - Apply pivot, ball-joint, and user-defined restraints - Compute the frequency analysis for a single part - Create planar sections to visualize the internal result values - Compute and refine a mesh using adaptive meshing in order to achieve the pre-defined accuracy
Prerequisites	Students attending this course should have knowledge of CATIA V5 Fundamentals and Generative Part Structural Analysis Fundamentals
Available Online	Yes

Generative Part Structural Analysis Fundamentals (GPF)

Course Code	CAT-en-GPF-F-V5R20
Available Release	V5R20
Duration	8 hours
Course Materials	English , French , German , Japanese
Level	Fundamental
Audience	Mechanical Designers
Description	This course will teach you the basic concepts of Finite Element Analysis and the general analysis process. You will learn how to perform a simple static analysis on a single part using finite elements, and how to produce the final report of the analysis results.
Objectives	Upon completion of this course you will be able to: - Understand why, when, and how to use Finite Element Analysis - Use different element types and shapes to mesh a part - Apply clamp, slider, and iso-static restraints - Apply force, moment, and displacement loads - Compute the static analysis for a single part - Visualize the images of the analysis results and produce the analysis reports - Refine existing meshes to produce more accurate results
Prerequisites	Students attending this course should have knowledge of CATIA V5 Fundamentals
Available Online	Yes

CATIA - Virtual Design

CATIA Equipment and Systems Engineering

CATIA V5 for Electrical Designers (V5VE)

Course Code	CAT-en-V5VE-F-V5R20
Available Release	V5R20
Duration	48 hours
Course Material	English
Level	Fundamental
Audience	Automotive Electric Harness Designers, New Electrical V5 users
Description	This course will introduce you to the Fundamentals of CATIA V5. You will be able to design parts and assemblies and create simple drawings. You will be then introduced to Electrical Library products. This course will also teach you to create Electrical Harness in the automotive assemblies. You will also learn to map the functional specifications of the Harness system to the digital mock-up created in CATIA V5 and create harness documentation.
Objectives	Upon completion of this course you will be able to: - Understand the CATIA V5 interface - Design an automotive wire harness - Route the signals and create the wires - Flatten and synchronize an electrical or geometrical harness - Design and manage parts in the context of an assembly - Generate harness documentation - Produce simple drawings
Prerequisites	Students attending this course should be familiar with Mechanical design concepts and Windows Operating System.
Available Online	Yes

	Circuit Board Design (CBD)
Course Code	CAT-en-CBD-F-V5R20
Available Release	V5R20
Duration	4 hours
Course Material	English
Level	Fundamental
Audience	Electrical Designers
Description	This course will teach you how to use the CATIA Circuit Board Design workbench. You will learn how to design circuit board geometry in the context of mechanical assembly, and create spatial and technological constraint areas. You will also learn how to exchange data with ECAD systems through IDF Files (Import / Export) and create catalogs of electronic parts.
Objectives	Upon completion of this course you will be able to: - Understand and use the CATIA Circuit Board Design workbench - Create Printed Circuit Boards (PCB) in context of Assemblies - Export or import the PCB through an ECAD tool using the IDF interface.
Prerequisites	Students attending this course should have the knowledge of CATIA V5 Fundamentals, Part Design, and Assembly Design.
Available Online	Yes

Electrical 3D Design and Documentation (EC1)

Course Code	CAT-en-EC1-F-V5R20
Available Release	V5R20
Duration	16 hours
Course Material	English
Level	Fundamental
Audience	Consumer Goods Electric Harness Designers.
Description	This course will teach you how to use the Electrical 3D Design Part and Assembly workbenches with a focus on the Consumer Goods industry. You will learn how to create electrical assemblies, route multi-branchables, route wires, and create drawings of the electrical harness assemblies.
Objectives	Upon completion of this course you will be able to - Create the Harness suitable for the consumer goods - Design the wire harness for the appliances - Route the signals and create the wires - Flatten and synchronize an electrical or geometrical harness - Generate the harness documentation - Produce simple drawings
Prerequisites	Students attending this course should be familiar with Mechanical design concepts and have knowledge of Part Design, Assembly Design and Drafting workbenches
Available Online	Yes

	Electrical Harness Flattening (EHF)
Course Code	CAT-en-EHF-F-V5R20
Available Release	V5R20
Duration	8 hours
Course Material	English
Level	Fundamental
Audience	Electrical V5 users
Description	This course introduces you to the Electrical Harness Flattening workbench. You will learn how to flatten and synchronize an electrical / geometrical harness integrated within the Digital Mock-Up. You will also learn how to modify the bundle segments of a harness. Additionally, the course teaches you how to define and generate a report. It teaches you how to create a 2D drawing of a 3D harness. You will also learn how to create a Catalog Text Template for annotations and dimensions.
Objectives	Upon completion of this course you will be able to: - Flatten and synchronize the electrical or the geometrical harnesses - Modify the bundle segments of a harness to fit your drawing - Define and generate reports - Create 2D drawings of 3D harnesses - Create Text Templates Catalog
Prerequisites	Students attending this course should have knowledge of Catalog Editor, CATIA V5 Electrical Harness Installation and Assembly, and Electrical Wire Routing
Available Online	Yes

Electrical Librarian and Harness Installation (ELI)

Course Code	CAT-en-ELI-F-V5R20
Available Release	V5R20
Duration	16 hours
Course Material	English
Level	Fundamental
Audience	Electrical Harness Designers
Description	This course teaches you how to build and manage an Electrical Components Catalog. You will learn how to design a harness integrated within the Digital Mock-Up. You will also learn how to connect bundle segments to electrical components.
Objectives	Upon completion of this course you will be able to: - Build and manage an Electrical Components Catalog - Design a harness integrated within the Digital Mock-Up - Connect bundle segments to electrical components
Prerequisites	Students attending this course should have knowledge of CATIA V5 Basics, Part Design, and Catalog Editor
Available Online	Yes

	Electrical Wire Routing (EWR)
Course Code	CAT-en-EWR-F-V5R20
Available Release	V5R20
Duration	4 hours
Course Material	English
Level	Fundamental
Audience	Electrical V5 users
Description	This course introduces you to the Electrical Wire Routing workbench. You will learn how to route signals and create wires using a harness and a functional definition. You will also learn how to integrate external tools with CATIA's Electrical Products.
Objectives	Upon completion of this course you will be able to: - Route signals - Create wires - Integrate external tools with CATIA's electrical products
Prerequisites	Students attending this course should have knowledge of CATIA V5 Basics, Electrical Librarian, and Electrical Harness Installation.
Available Online	Yes

Equipment and Systems Environment (ES1)

Course Code	CAT-en-ES1-F-V5R20
Available Release	V5R20
Duration	1 hour
Course Material	English
Level	Fundamental
Audience	All Students for Equipment and Systems training
Description	This course will teach you how to organize various products under CATIA Equipment and Systems domain. You will learn about the structure of the Equipment and Systems courses. You will also learn about the difference between setup-data and design-data.
Objectives	Upon completion of this course, you will become familiar with - Present an overview of CATIA V5 Equipment and Systems Portfolio - Identify the Industrial General Process - Manage Project Resources and Concurrent engineering approach - Organize the Data
Prerequisites	None
Available Online	Yes

Equipment and Systems Setup and Administration (ESA)

Course Code	CAT-en-ESA-F-V5R20
Available Release	V5R20
Duration	8 hours
Course Material	English
Level	Fundamental
Audience	Equipment and System Designers, Equipment & System Administrators
Description	This course will teach you how to create and configure a new project in the Equipment and Systems discipline. You will learn how to perform the administrative tasks during the new project creation.
Objectives	Upon completion of this course you will be able to: - Create the structure and organize the data - Create the site and project directories - Set up the project environment - Configure and manage the project resources - Set up the project - Define the drafting standards, Generative View Styles and Backing Sheets
Prerequisites	Students attending this course should have knowledge of CATIA V5 Fundamentals.
Available Online	Yes

Equipment Arrangement (EQT)

Course Code	CAT-en-EQT-F-V5R20
Available Release	V5R20
Duration	4 hours
Course Material	English
Level	Fundamental
Audience	Engineers, Equipment and Systems Designers
Description	This course will teach you how to use the Equipment Arrangement workbench to administrate catalogs for equipments in manufacturing plants, process and power plants, and ships..
Objectives	Upon completion of this course, you will be able to: - Place equipments and manage their positions in space - Generate reports and drawings.
Prerequisites	Students attending this course should have knowledge of CATIA V5 fundamentals
Available Online	Yes

	Equipment Arrangement Setup (EQS)
Course Code	CAT-en-EQS-F-V5R20
Available Release	V5R20
Duration	24 hours
Course Material	English
Level	Fundamental
Audience	Equipment Administrator
Description	This course will teach you how to use the Equipment Arrangement workbench to administrate catalogs for equipments in manufacturing plants, process and power plants, and ships .
Objectives	Upon completion of this course you will be able to : - Use the tools in the Equipment Arrangement workbench. - Setup and administrate catalogs for the Equipment Arrangement Setup workbench.
Prerequisites	Students attending this course should have knowledge of Equipment and Systems Setup and Administration, Equipment Arrangement.
Available Online	Yes

	Generic Routing (ES2)
Course Code	CAT-en-ES2-F-V5R20
Available Release	V5R20
Duration	8 hours
Course Material	English
Level	Fundamental
Audience	Engineers, Equipment and Systems Designers
Description	This course will teach you how to use the CATIA Equipment and Systems Design Products to quickly and efficiently create an intelligent Layout.
Objectives	Upon completion of this course you will be able to - Understand and use the CATIA Equipment and System Design products - Organize the data - Organize the route - Modify the runs - Manipulate objects
Prerequisites	Students attending this course should have knowledge of CATIA V5 Fundamentals
Available Online	Yes

HVAC Design (HVA)

Course Code	CAT-en-HVA-F-V5R20
Available Release	V5R20
Duration	8 hours
Course Material	English
Level	Fundamental
Audience	HVAC Designers
Description	This course will teach you how to manage HVAC line IDs, to create and modify the HVAC design and to place the parts on HVAC lines using the HVAC Design workbench. You will also learn to generate drawing and report.
Objectives	Upon completion of this course you will be able to: - Use the HVAC Design workbench - Create HVAC design routing - Place the HVAC parts on the lines - Modify the HVAC design and - Generate documents
Prerequisites	Students attending this course should have knowledge of EQT and ES2.
Available Online	Yes

	HVAC Diagrams (HVD)
Course Code	CAT-en-HVD-F-V5R20
Available Release	V5R20
Duration	8 hours
Course Material	English
Level	Fundamental
Audience	HVAC Schematic Designers, HVAC Designers
Description	This course will teach you how to use the HVAC Diagram workbench to create, modify, analyze, and document HVAC Diagrams designs . You will learn to create and manage logical designs of HVAC systems using industry standard conventions, terminology, and practices.
Objectives	Upon completion of this course you will be able to: - Create and modify Diagrams - Create and manage Zone - Generate Reports - Import Design Checks and detect Design Failures
Prerequisites	- Students attending this course should have knowledge of - CATIA V5 Fundamentals
Available Online	Yes

	HVAC Setup and Catalogs (HVS)
Course Code	CAT-en-HVS-F-V5R20
Available Release	V5R20
Duration	40 hours
Course Material	English
Level	Fundamental
Audience	HVAC Administrators
Description	This course will teach you how to customize the CATIA HVAC Design Product to suit your needs, while creating intelligent HVAC Layouts quickly and efficiently. You will also learn how to administrate catalogs for the HVAC discipline.
Objectives	Upon completion of this course you will be able to: - Setup and administrate catalogs for the HVAC discipline - Manage the Feature Dictionary, HVAC Standards, and Design Rules - Create 2D Diagrams Catalogs, HVAC Parts, and HVAC Specifications
Prerequisites	Students attending this course should have experience in Equipment and Systems Setup and Administration, HVAC Diagrams Fundamentals, and HVAC Design
Available Online	Yes

	Piping and Instrumentation Diagrams (PID)
Course Code	CAT-en-PID-F-V5R20
Available Release	V5R20
Duration	4 hours
Course Material	English
Level	Fundamental
Audience	Piping Designers and Instrumentation Engineers
Description	This course will teach you how to use the Piping and Instrumentation Diagrams workbench. You will learn how to create logical designs of piping systems.
Objectives	Upon completion of this course you will be able to: - Understand and use Piping and Instrumentation Diagrams workbench. - Create and manage logical designs of piping systems
Prerequisites	Students attending this course should have knowledge of CATIA V5 Basics
Available Online	Yes

	Piping Design (PIP)
Course Code	CAT-en-PIP-F-V5R20
Available Release	V5R20
Duration	8 hours
Course Material	English
Level	Fundamental
Audience	Piping Design Engineers
Description	This course will teach you how to perform the general process of piping design using the Piping Design workbench. You will learn how to define the routing, place and modify the piping parts and generate the reports.
Objectives	Upon completion of this course you will be able to: - Manage the piping line IDs - Define a routing - Place, orient and locate the piping parts - Modify a piping design by resizing, re-specifying and managing the flow direction - Define and Generate Reports and Drawings
Prerequisites	Students attending this course should have knowledge of Equipment Arrangement and Generic Routing
Available Online	Yes

	Piping Setup (PIS)
Course Code	CAT-en-PIS-F-V5R20
Available Release	V5R20
Duration	40 hours
Course Material	English
Level	Fundamental
Audience	Piping Administration
Description	This course teaches you how to manage the settings and administrate the catalogs for the Piping discipline. You will learn about management of Feature Dictionary, Piping Standard, and Design Rules. You will also learn how to create 2D Diagrams Catalogs, Piping Parts, and Piping Specifications.
Objectives	Upon completion of this course you will be able to: - Setup and administrate catalogs for the Piping discipline - Manage the Feature Dictionary, Piping Standard, and Design Rules - Create 2D Diagrams Catalogs, Piping Parts, and Piping Specifications
Prerequisites	Students attending this course should have experience in Equipment and Systems Setup and Administration, Piping & Instrumentation Diagrams Fundamentals, and Piping Design
Available Online	Yes

	Plant Layout (PLO)
Course Code	CAT-en-PLO-F-V5R20
Available Release	V5R20
Duration	8 hours
Course Material	English
Level	Fundamental
Audience	Layout Engineers
Description	This course will teach you how to use the CATIA Plant Layout product. You will also learn how to create a 3D layout for a manufacturing facility by creating and modifying areas, pathways, and item reservations, especially during the conceptual/preliminary design phases
Objectives	Upon completion of this course, you will learn how to: - Use CATIA Plant Layout product. - Create a 3D layout for a manufacturing facility.
Prerequisites	Students attending this course should have knowledge of CATIA V5 fundamentals
Available Online	Yes

	Structure Detail Design (SDD)
Course Code	CAT-en-SDD-F-V5R20
Available Release	V5R20
Duration	32 hours
Course Material	English
Level	Fundamental
Audience	Structural Designers, Naval Architects
Description	This course will teach you how to perform the general process of the ship design using the Ship Structure Detail Design workbench. You will learn how to perform the different phases of the project - from conceptual design through functional and detailed design- to extraction of deliverables.
Objectives	Upon completion of this course you will be able to: - Create a Panel System - Create a System Plane Grid - Create Stiffened Panels - Create Pillars and Beams. - Synchrone the hull form and the reference planes - Create Detailing Features - Define reports, generate reports and drawings
Prerequisites	Students attending this course should be familiar with CATIA V5 Fundamentals.
Available Online	Yes

Structure Functional and Design Setup (STS)

Course Code	CAT-en-STS-F-V5R20
Available Release	V5R20
Duration	24 hours
Course Material	English
Level	Fundamental
Audience	Structural Administrators
Description	This course teaches you how to manage the settings and administrate the catalogs for the Ship Structure discipline. This course will teach you how to manage the settings for the Ship Structure discipline and administrate the catalogs. You will learn about management of Feature Dictionary, Project Resources, Molded Conventions and the Ship???s Coordinate System. You will also learn how to create Parts, Small Assembly and create reports.
Objectives	Upon completion of this course you will be able to: - Manage the Feature Dictionary - Identify the Ship???s Coordinate System - Identify the Molded Conventions - Define the Structure Catalog - Create Reports
Prerequisites	CATIA V5 Fundamentals
Available Online	Yes

	Structure Functional Design (SFD)
Course Code	CAT-en-SFD-F-V5R20
Available Release	V5R20
Duration	16 hours
Course Material	English
Level	Fundamental
Audience	Structural Designers, Naval Architects
Description	This course will teach you how to use the Structure Functional Design workbench to perform the general process of the ship design. You will learn how to perform the different phases of the project - from conceptual design through functional and detailed design - to extraction of deliverables.
Objectives	Upon completion of this course you will be able to: - Produce conceptual design decks and major bulkheads. - Define longitudinal and transverse stiffener systems. - Calculate the ship strength as well as early weight. - Plan break creation - Define and generate reports and drawings
Prerequisites	Students attending this course should have knowledge of CATIA V5 Fundamentals
Available Online	Yes

	Systems Space Reservation (SSR)
Course Code	CAT-en-SSR-F-V5R20
Available Release	V5R20
Duration	8 hours
Course Material	English
Level	Fundamental
Audience	System Architects
Description	This course will teach you how to create the space networks quickly and efficiently using the CATIA System Space Reservation product. You will also learn to define a space reservation network that can be done at a preliminary or detailed design stage for routing physical objects such as tubing or cable routing.
Objectives	Upon completion of this course you will learn how to: - Design and modify the Walkways. - Create and modify the Space Reservations. - Arrange the Equipment into Reservations from Catalogs. - Modify resources and positions
Prerequisites	Students attending this course should have knowledge of CATIA V5 Fundamentals
Available Online	Yes

Tubing Catalogs (2D Diagrams and 3D Design) (TUS)

Course Code	CAT-en-TUS-F-V5R20
Available Release	V5R20
Duration	32 hours
Course Material	English
Level	Fundamental
Audience	Mechanical Designers
Description	This course will teach you how to customize the CATIA Tubing Design Product to suit your needs, while creating intelligent Tubing Layouts quickly and efficiently. You will also learn how to administrate catalogs for the Tubing discipline.
Objectives	Upon completion of this course you will be able to: - Manage the object classes in the Feature Dictionary - Create 2D Diagram Catalogs and 3D Design Catalogs - Create Standards Catalogs and Design Rules Catalogs - Create Reports - Customize the settings for the Drawings
Prerequisites	Students attending this course should have knowledge of CATIA V5 Fundamentals, Tubing Design, Tubing Diagrams and ESA
Available Online	Yes

	Tubing Design (TUB)
Course Code	CAT-en-TUB-F-V5R20
Available Release	V5R20
Duration	8 hours
Course Material	English
Level	Fundamental
Audience	Tubing Designers
Description	This course will teach you how to identify and use the Tubing Design workbench tools. You will learn the basic steps for creating, modifying, and managing tubing design.
Objectives	Upon completion of this course you will be able to: - Understand and use the CATIA Tubing Design product - Create an intelligent tubing layout quickly and efficiently .
Prerequisites	Students attending this course should have knowledge of CATIA V5 Fundamentals, ES1, ES2 and EQT
Available Online	Yes

	Tubing Diagrams (TUD)
Course Code	CAT-en-TUD-F-V5R20
Available Release	V5R20
Duration	8 hours
Course Material	English
Level	Fundamental
Audience	Tubing Schematic Designers, Tubing Designers
Description	This course will teach you how to create, modify, and annotate the tubing diagram. You will learn to generate the reports and implement and use the Design Checks. You will also learn how to navigate the objects and analyze a network.
Objectives	Upon completion of this course you will be able to: - Use the Tubing Diagram product to quickly and efficiently create a schematic diagram. - Generate reports - Implement and use the design checks - Navigate the objects - Analyze the network
Prerequisites	Students attending this course should have knowledge of CATIA V5 Fundamentals
Available Online	Yes

CATIA - Virtual Design

CATIA Infrastructure

CATIA Tools For Proficient Users (PRO)

Course Code	CAT-en-PRO-F-V5R20
Available Release	V5R20
Duration	8 hours
Course Materials	English , French , German , Japanese
Level	Fundamental
Audience	Advanced CATIA V5 Users
Description	This course will teach you how to use advanced CATIA functions such as Catalog Edition, Powercopy Management, and User Defined Feature Management.
Objectives	Upon completion of this course you will be able to: - Create advanced replication features like Power Copies - Store components and Power Copies into a catalog and reuse them in a new context - Analyze and migrate CATIA V4 models to CATIA V5
Prerequisites	Students attending this course should have knowledge of CATIA Fundamentals and CATIA Part Design
Available Online	Yes

	CATIA V5 Automation (VBA)
Course Code	CAT-en-VBA-F-V5R20
Available Release	V5R20
Duration	8 hours
Course Material	English
Level	Fundamental
Audience	Application developers
Description	This course will introduce you to automation process in CATIA using Visual Basic language. You will learn how to create automation scripts, programs and macros in CATIA V5 using Visual Basic. You will learn the Visual Basic routing specific to CATIA V5.
Objectives	Upon completion of this course, you will be able to create automation scripts, programs, and macros in CATIA V5 using Visual Basic and other automation tools available in CATIA V5.
Prerequisites	Students attending this course should have knowledge of CATIA V5 Interactive and Visual Basic
Available Online	No

	Getting Started with CATIA V5 (COM)
Course Code	CAT-en-COM-F-V5R20
Available Release	V5R20
Duration	4 hours
Course Materials	English , French , German , Japanese
Level	Fundamental
Audience	New CATIA V5 Users
Description	This course will teach you how to start working in CATIA V5. You will learn how to perform basic operations using the standard user interface elements and tools. You will also learn about graphic properties and how to use the basic visualization techniques to view objects in CATIA V5.
Objectives	Upon completion of this course you will be able to: - Open CATIA V5 documents and use basic tools to modify them - Use the specification tree to browse and understand the structure of an object - Use the compass to manipulate the viewpoint - View and modify the graphic properties of an object
Prerequisites	None
Available Online	Yes

	Photo Studio (PHS)
Course Code	CAT-en-PHS-F-V5R20
Available Release	V5R20
Duration	4 hours
Course Material	English
Level	Fundamental
Audience	Industrial Stylists and Designers
Description	This course will teach you how to create photo realistic images and simple animations of a product using Photo Studio workbench.
Objectives	Upon completion of this course you will be able to: - Create photo realistic images using the Photo Studio workbench - Create and apply stickers to your models - Create animations using different techniques
Prerequisites	Students attending this course should have knowledge of CATIA V5 Fundamentals
Available Online	No

	Photo Studio Optimizer (PSO)
Course Code	CAT-en-PSO-F-V5R20
Available Release	V5R20
Duration	4 hours
Course Material	English
Level	Fundamental
Audience	Industrial Stylists and Designers
Description	This course will teach you to create realistic images using advanced Photo rendering tools like Bump Mapping, Global Illumination and Caustics.
Objectives	Upon completion of this course you will be able to: - Upon completion of this course you will be able to use the various Photo Studio Optimizer tools to enhance the quality of your photo realistic images.
Prerequisites	Students attending this course should have knowledge of CATIA V5 Fundamentals and Photo Studio
Available Online	No

	Real Time Rendering (RTR)
Course Code	CAT-en-RTR-F-V5R20
Available Release	V5R20
Duration	8 hours
Course Material	English
Level	Fundamental
Audience	CATIA V5 Fundamentals
Description	This course will teach you to create realistic renderings and animations by dynamically creating and manipulating materials, lights and environments.
Objectives	Upon completion of this course you will be able to: - Create the required environment around a model - Apply materials, textures, and 3D textures to your models - Use different types of lights and cameras to create the desired ambience
Prerequisites	Students attending this course should have knowledge of CATIA V5 Fundamentals
Available Online	No

V5 Administration (ADM)

Course Code	CAT-en-ADM-F-V5R20
Available Release	V5R20
Duration	3 Days
Course Materials	English , French , German , Japanese
Level	Fundamental
Audience	Administrators of CATIA V5
Description	In this course you will learn how to install CATIA V5 and the service packs of CATIA V5 and how to manage licenses, environments and the standards. You will also learn to use tools available in batch mode and how to improve the data managment for the users.
Objectives	Upon completion of this course you will be able to: - Install CATIA V5 and service packs - Manage CATIA licenses and environments - Manage CATIA settings and standards - Use CATIA V5 data management tools - Manage CATIA V4 data in V5, and CATIA V5 data in V4
Prerequisites	- Students attending this course should have knowledge of: - System Administration - CATIA Administration
Available Online	Yes

CATIA - Virtual Design

CATIA Machining

	Advanced Part Machining (AMG)
Course Code	CAT-en-AMG-F-V5R20
Available Release	V5R20
Duration	12 hours
Course Material	English
Level	Fundamental
Audience	Advanced NC Programmers.
Description	This course teaches you how to generate high quality NC programs for machining complex 3D parts and free-form shapes using advanced machining techniques. You will learn how to perform 2.5 to 5-Axis machining operations and Axial Machining.
Objectives	Upon completion of this course you will be able to: - Identify and use the Advance Part Machining workbench tools - Define a Multi-Axis Flank Contouring operation - Define a Multi-Axis Helix Machining operation - Define a Cavities Roughing operation
Prerequisites	Students attending this course should have knowledge of Numerical Control Infrastructure(NCI), PMG, SMG and MMG workbench.
Available Online	Yes

	Lathe Machining (LMG)
Course Code	CAT-en-LMG-F-V5R20
Available Release	V5R20
Duration	8 hours
Course Material	English
Level	Fundamental
Audience	NC Programmers
Description	This course will teach you how to define and manage NC programs dedicated to machining parts using Lathe Machining techniques. You will learn how to program Lathe Machining operations such as Rough Turning, Finish Turning, Recessing, Grooving, Threading, and Drilling. You will also learn how to manage various Lathe Tools.
Objectives	Upon completion of this course you will be able to: - Identify and use the Lathe Machining workbench tools - Define Lathe Machining operations - Manage Lathe Tools and Tool Assemblies - Use different methodologies for Lathe Machining
Prerequisites	Students attending this course should have knowledge of CATIA V5 Fundamentals and Numerical Control Infrastructure workbench
Available Online	Yes

	Multi-Axis Surface Machining (MMG)
Course Code	CAT-en-MMG-F-V5R20
Available Release	V5R20
Duration	8 hours
Course Material	English
Level	Fundamental
Audience	Advanced NC Programmers
Description	This course teaches you how to create high quality NC programs for machining complex 3D parts and free-form shapes using Multi-Axis machining techniques. The course also teaches you to define 5-Axis machining operations.
Objectives	Upon completion of this course you will be able to: - Identify and use the Multi-Axis Surface Machining workbench tools. - Define 5-Axis machining operations such as Multi-Axis Sweeping, Multi-Axis Contour Driven, Multi-Axis Curve Machining, Multi-Axis Isoparametric Machining, Multi-Axis Drilling and Multi-Axis Tube Machining.
Prerequisites	Students attending this course must have knowledge of CATIA V5 Surface Machining (SMG) Fundamentals
Available Online	Yes

	Multi-Pockets Machining (MPG)
Course Code	CAT-en-MPG-F-V5R20
Available Release	V5R20
Duration	4 hours
Course Material	English
Level	Fundamental
Audience	NC programmer, Machininst
Description	This course teaches you to generate high quality NC programs for machining structural prismatic multi-cavity parts such as aerospace structural parts. The course helps you to improve productivity in the context of Power Machining. The course also teaches in detail about Offset Management.
Objectives	Upon completion of this course you will be able to: - Create high quality NC programs for machining structural prismatic multi-cavity parts such as aerospace structural parts - Define Multi-Pockets Operations in Power Machining and Flank Contouring
Prerequisites	Students attending this course must have knowledge of CATIA V5 Fundamentals and Numerical Control Infrastructure
Available Online	Yes

	Multi- Slide Lathe Machining (MLG)
Course Code	CAT-en-MLG-F-V5R20
Available Release	V5R20
Duration	8 hours
Course Material	English
Level	Fundamental
Audience	NC programmer who wants to optimize the NC Program in a Multi turret Machine environment
Description	This course will teach you how to define and manage NC programs using Multi turret and Multi spindle machines. You will learn how to create synchronizations between two machining operations and visualize the distribution of the machining operations while applying various turrets using the Gantt chart. The course will also help you to check program sequence, synchronization influences, and potential collisions between tools using Time Based Replay and Video.
Objectives	Upon completion of this course you will be able to: - Build programs with CATIA V5 Multi turret & Multi spindle machines - Create synchronizations between two machining operations - Visualize the distribution of the machining operations while applying various turrets using the Gantt chart - Check program sequence, synchronization influences, and potential collisions between tools using Time Based Replay and Video.
Prerequisites	Students attending this course should have knowledge of CATIA V5 Fundamentals, NC Infrastructure, and Lathe Machining
Available Online	Yes

	Numerical Control Infrastructure (NCI)
Course Code	CAT-en-NCI-F-V5R20
Available Release	V5R20
Duration	16 hours
Course Material	English
Level	Fundamental
Audience	NC Programmers
Description	This course will teach you how to use various functionalities common across all the Machining workbenches in CATIA. It will teach you the fundamentals of creating and simulating a Manufacturing Program.
Objectives	Upon completion of this course you will be able to: - Identify and use the Manufacturing workbenches' tools - Create a Manufacturing Program - Simulate a Manufacturing Program - Manage Tools and Tool Catalogs - Define and verify the Tool Path - Generate NC data using an integrated Post Processor - Create shop floor documentation - Manage design changes - Import V4 data
Prerequisites	Students attending this course should have knowledge of CATIA V5 fundamentals
Available Online	yes

	Prismatic Machining (PMG)
Course Code	CAT-en-PMG-F-V5R20
Available Release	V5R20
Duration	16 hours
Course Material	English
Level	Fundamental
Audience	NC Programmers
Description	This course will teach you how to define and manage NC programs dedicated to machining parts using Prismatic Machining techniques in the Prismatic Machining (PMG) workbench. You will learn to create 2.5 Axis Milling operations. You will also learn to use the PMG functionalities for creating Prismatic Machining and Rework Areas.
Objectives	Upon completion of this course you will be able to: - Identify and use the Prismatic Machining workbench tools - Define Prismatic Machining operations (2.5 Axis Milling) in CATIA V5 - Create a Prismatic Machining Area and a Rework Area - Define and modify NC Macros
Prerequisites	Students attending this course should have knowledge of CATIA V5 Fundamentals and Numerical Control Infrastructure workbench
Available Online	Yes

Prismatic Machining Preparation Assistant (MPA)

Course Code	CAT-en-MPA-F-V5R20
Available Release	V5R20
Duration	4 hours
Course Material	English
Level	Fundamental
Audience	NC Programmers
Description	This course teaches you how to define and manage NC programs dedicated to machining parts, using 2.5 Axis Machining operations. This course will also teach you to create and manage locally and automatically prismatic machinable features.
Objectives	Upon completion of this course you will be able to: - Define 2.5 Axis Milling operations in CATIA V5 - Create prismatic machinable features - Form a link between Design and Manufacturing
Prerequisites	Students attending this course should have knowledge of CATIA V5 Fundamentals, Numerical Control Infrastructure, Prismatic Machining
Available Online	Yes

	STL Rapid Prototyping (STL)
Course Code	CAT-en-STL-F-V5R20
Available Release	V5R20
Duration	2 hours
Course Material	English
Level	Fundamental
Audience	Surface designers
Description	This course teaches you to create a mesh from a surface or a solid. You will also learn about improving the mesh and exporting it as an STL file.
Objectives	Upon completion of this course you will learn how to - Create a triangular mesh from a surface or a solid - Rectify, tune, improve a triangular mesh, - Export a mesh as a standard STL file usable for rapid prototyping by stereolithography or any other prototyping technique (FDM, classical 3 axis milling)
Prerequisites	Students attending this course should have knowledge of Digitized Shape Editor
Available Online	Yes

	Surface Machining (SMG)
Course Code	CAT-en-SMG-F-V5R20
Available Release	V5R20
Duration	16 hours
Course Material	English
Level	Fundamental
Audience	NC Programmers
Description	This course will teach you how to define and manage NC programs dedicated to machining parts that are designed with Surface or Solid geometry. You will learn how to define 3-Axis Roughing, Semi-finishing and Finishing operations. The course will also help you to improve productivity in mould and die machining using various functionalities of 3-Axis Surface Machining.
Objectives	Upon completion of this course you will be able to: - Identify and use the Surface Machining workbench tools - Define 3-Axis Surface Machining operations - Define Probing Operations - Create a Machining Area before performing the operations - Define a Rework Area - Analyze and modify the Tool Path
Prerequisites	Students attending this course should have knowledge of CATIA V5 Fundamentals and Numerical Control Infrastructure workbench
Available Online	Yes

CATIA - Virtual Design

CATIA Mechanical Design

	2D Layout for 3D Design (LO1)
Course Code	CAT-en-LO1-F-V5R20
Available Release	V5R20
Duration	8 hours
Course Material	English
Level	Fundamental
Audience	Mechanical Designers
Description	This course will teach you how to create 2D layout views ina 3D model and use them to design the part in 3D environment.
Objectives	Upon completion of this course you will be able to: - Create 2D layout views in a 3D environment - Export 2D geometry into a 3D environment - Create drawings using the 2D layout views
Prerequisites	Students attending this course should have knowledge of CATIA V5 fundamentals
Available Online	Yes

	3D Functional Tolerancing & Annotation (FTA)
Course Code	CAT-en-FTA-F-V5R20
Available Release	V5R20
Duration	16 hours
Course Material	English
Level	Fundamental
Audience	Mechanical Designers
Description	This course will teach you how to create annotation planes in CATPart, and to add and manage 3D annotations on these planes. You will also learn how to create 3D views in CATPart, and use them to create 2D views in CATDrawing.
Objectives	Upon completion of this course you will be able to: - Create and manage annotation planes and views - Manage and position these annotations - Add 3D annotations to a part - Manage 3D geometry associated to the 3D annotations
Prerequisites	Students attending this course should have knowledge of Basics of Solids and Surfaces creation, and Basics of Knowledgeware.
Available Online	Yes

Advanced Drafting and Customization (DRA)

Course Code	CAT-en-DRA-A-V5R20
Available Release	V5R20
Duration	16 hours
Course Material	English
Level	Advanced
Audience	Draftsmen, Drafting Administrators
Description	This course will teach you how to set and manage all dimension and annotation standards contained in the standard files according to company or projects needs.
Objectives	Upon completion of this course you will be able to: - use hints and tips on Generative and Interactive drafting - Perform administration tasks to set and manage all dimension and annotation standards - Generate coordinate tables - Create frames and title blocks with a macro
Prerequisites	Students attending this course should have knowledge of CATIA V5 Mechanical Design fundamentals and VB scripting
Available Online	Yes

	Aerospace Sheetmetal Design (ASL)
Course Code	CAT-en-ASL-F-V5R20
Available Release	V5R20
Duration	8 hours
Course Material	English
Level	Fundamental
Audience	Aerospace Designers
Description	This course will teach you how to use the CATIA Aerospace Sheetmetal Design workbench. You will learn how to create and modify the design of a Hydro-formed Sheetmetal Part bydefining its internal features in this workbench. You will also learn the process of drawing a flattened part.
Objectives	Upon completion of this course you will be able to: - Use CATIA Aerospace Sheetmetal Design workbench to manage Sheetmetal parameters. - Create and modify the design of a Hydro-formed Sheetmetal Part. - Generate and draw a flattened part. - Create a Knowledge Expert Check using characteristic curves.
Prerequisites	Students attending this course should have knowledge of Part Design, Assembly Design, and Wireframe & Surface Design
Available Online	Yes

CATIA Composites Design V5R20 Update (CPD)

Course Code	CAT-en-CPD-U-V5R20
Available Release	V5R20
Duration	4 hours
Course Material	English
Level	Update
Audience	Composite Designer, CATIA V5 Designer
Description	This course will teach you how to use the enhanced V5R20 functionalities of the Composites Design and the Composites Grid Design workbenches.
Objectives	Upon completion of this course you will be able to: - Use the new features available in Grid-based design. - Use the new general Composites design functionalities and enhancements. - Prepare a Composites part for manufacturing using the improved manufacturing preparation functions.
Prerequisites	Students attending this course should have knowledge of V5R19 CATIA Composites Design.
Available Online	Yes

	CATIA Detail Drafting (DDR)
Course Code	CAT-en-DDR-F-V5R20
Available Release	V5R20
Duration	16 hours
Course Materials	English , French , German , Japanese
Level	Fundamental
Audience	Draftsmen
Description	This course will teach you how to use the Drafting workbench tools to create interactive product views. You will also learn how to use advanced tools to dress-up and annotate the views. Additionally, you will learn how to customize the Drafting workbench to suit your needs.
Objectives	Upon completion of this course you will be able to: - Create an interactive view and draw a sketch on it - Add annotations to dress-up the view - Use advanced dimensioning tools - Perform 2D-3D links management - Customize the Drafting workbench as per your requirements
Prerequisites	Students attending this course should know how to create 2D views in CATIA V5
Available Online	Yes

CATIA Generative Drafting Fundamentals (ANSI) (GDRA)

Course Code	CAT-en-GDRA-F-V5R20
Available Release	V5R20
Duration	8 hours
Course Material	English
Level	Fundamental
Audience	Draftsmen
Description	This course will teach you how to use the Drafting workbench of CATIA V5 to create drawings. You will learn how to produce a drawing by creating projection views and section views of a 3D model and adding basic dimensions.
Objectives	Upon completion of this course you will be able to: - Create simple projection views and section views of 3D parts - Position the views on a drawing sheet - Add dimensions to the views - Manage the graphic properties of the drawing sheet - Finalize the drawing sheet by adding a title block
Prerequisites	Students attending this course should have knowledge of CATIA Fundamentals
Available Online	Yes

	CATIA Generative Drafting Fundamentals (ISO) (GDRI)
Course Code	CAT-en-GDRI-F-V5R20
Available Release	V5R20
Duration	8 hours
Course Materials	English , French , German , Japanese
Level	Fundamental
Audience	Mechanical Draftsmen
Description	This course will teach you how to use the Drafting workbench of CATIA V5 to create drawings. You will learn how to produce a drawing by creating projection views and section views of a 3D model and adding basic dimensions.
Objectives	Upon completion of this course you will be able to: - Create simple projection views and section views of 3D parts - Position the views on a drawing sheet - Add dimensions to the views - Finalize the drawing sheet by adding a title block
Prerequisites	Students attending this course should have knowledge of CATIA Fundamentals
Available Online	Yes

CATIA Generative Sheetmetal Design (SMD)

Course Code	CAT-en-SMD-F-V5R20
Available Release	V5R20
Duration	8 hours
Course Materials	English , French , German , Japanese
Level	Fundamental
Audience	Sheetmetal Designers
Description	This course will teach you how to design a sheetmetal part using associative feature-based modeling. You will learn how to integrate both standard and user-defined stamped features into your designs and calculate the resulting flat patterns in accordance with either the standard bend allowances or your company's bend allowance tables.
Objectives	Upon completion of this course you will be able to: - Understand the terminology and the design process for creating a sheetmetal part - Define and manage the sheetmetal part parameters - Design walls, bends, and flanges - Add features such as cutouts, holes, corners, and chamfers - Create standard and user-defined stamped features - Manage folded and unfolded views and export a finished flat pattern
Prerequisites	Students attending this course should have knowledge of CATIA V5 Fundamentals
Available Online	Yes

	CATIA Generative Sheetmetal Design V5R20 Updates (SMD)
Course Code	CAT-en-SMD-U-V5R20
Available Release	V5R20
Duration	4 hours
Course Material	English
Level	Update
Audience	Mechanical Designers
Description	This course will teach you how to use the enhanced V5R20 functionalities of CATIA Generative Sheetmetal Design workbench.
Objectives	Upon completion of this course you will be able to: - Create multiple Walls On Edge in a single step - Recognize solids having chamfers - Use the enhanced Cutout options for getting better results - Create a bend from flat using Bend Tangent Line (BTL) Support - Create a user stamp on both sides of a sheemetal part - Create a stamp that lie on a bend
Prerequisites	Students attending this course should have knowledge of V5R19 CATIA Generative Sheetmetal Design
Available Online	Yes

CATIA Mechanical Design V5R20 Update (MD2)

Course Code	CAT-en-MD2-U-V5R20
Available Release	V5R20
Duration	4 hours
Course Material	English
Level	Update
Audience	Mechanical Designers
Description	This course will teach you how to use the enhanced V5R20 functionalities of CATIA Mechanical Design workbenches.
Objectives	Upon completion of this course you will be able to: - Visualize a section of a part dynamically in the 3D Viewer - Add an edge fillet at the intersection of selected features - Create points on a curve along a direction - Repeat objects using datum mode and relative mode - Isolate a feature by breaking the links with its input - Create a mirrored extrude / cylinder - Create a V5 conic identical to a V4 conic - Position a section line at a specified distance from a selected edge - Customize a BOM to display the values for user-defined attributes - Upgrade your drafting data to the latest level
Prerequisites	Students attending this course should have knowledge of V5R19 CATIA Mechanical Design
Available Online	Yes

CATIA Part Design (PDG)

Course Code	CAT-en-PDG-F-V5R20
Available Release	V5R20
Duration	8 hours
Course Materials	English , French , German , Japanese
Level	Fundamental
Audience	CATIA V5 Mechanical Designers
Description	This course will teach you how to use the CATIA Part Design workbench to design 3D mechanical parts from 2D sketches. You will learn the fundamental methods of creating and modifying solid features of 3D parts in order to prepare them for manufacturing.
Objectives	Upon completion of this course you will be able to: - Design 3D mechanical parts using basic solid feature creation methods - Create 3D solid features based on 2D sketches - Apply Dress-Up features to the 3D parts - Duplicate and move the 3D features - Modify a 3D solid model as per the manufacturing requirements
Prerequisites	Students attending this course should have knowledge of CATIA Fundamentals and CATIA Sketcher
Available Online	Yes

CATIA Part Design Added Exercises (PDG)

Course Code	CAT-en-PDG-X-V5R20
Available Release	V5R20
Duration	13 hours
Course Materials	English , French , German , Japanese
Level	Exercise
Audience	CATIA V5 Mechanical Designers
Description	This course provides you with an exercise database for additional practice on CATIA Part Design. The exercises have been arranged in increasing order of difficulty. The fundamental exercises will check and refresh your basic Part Design skills before you move on to more complex topics. The advanced exercises will make you practice recommended design methodologies using realistic parts.
Objectives	Upon completion of these exercises you will have: - Refreshed your basic Part Design skills - Learned the recommended design methodologies
Prerequisites	Students attending this course should have attended the CATIA Part Design courses and the CATIA Knowledgeware courses
Available Online	Yes

	CATIA Part Design Expert (PDG)
Course Code	CAT-en-PDG-A-V5R20
Available Release	V5R20
Duration	12 hours
Course Materials	English , French , German , Japanese
Level	Advanced
Audience	CATIA V5 Mechanical Designers
Description	This course will teach you how to design complex 3D mechanical parts using the Boolean approach. You will learn how to work in a Multi-Model Environment and maintain links between your 3D models. You will also learn how to analyze your designs in order to optimize them.
Objectives	Upon completion of this course you will be able to: - Create a part using 3D reference elements - Create advanced Sketch-Based Features - Apply advanced Dress-Up Features - Design 3D parts using Boolean operations - Work in a Multi-Model Environment and share your designs with others - Analyze parts and optimize them - Annotate the parts for review
Prerequisites	Students attending this course should have attended the CATIA V5 Fundamentals, Getting started with CATIA V5, CATIA Sketcher, and Part Design Fundamentals courses
Available Online	Yes

	CATIA Product Design (ASM)
Course Code	CAT-en-ASM-F-V5R20
Available Release	V5R20
Duration	8 hours
Course Materials	English , French , German , Japanese
Level	Fundamental
Audience	Mechanical Designers
Description	This course will teach you how to create a simple product structure, and how to add existing components and position them correctly. You will learn how to add new parts and design them in the context of a product. You will also learn how to analyze assemblies and ensure design coherence.
Objectives	Upon completion of this course you will be able to: - Create a new product and add components to it - Move the components within a product by positioning them using assembly constraints - Modify an existing product structure - Design new parts in the context of a product - Check the mechanical properties of a product and analyze its degrees of freedom - Analyze interferences between parts and perform measurements
Prerequisites	Students attending this course should have knowledge of CATIA Part Design
Available Online	Yes

CATIA Product Design Added Exercises (ASM)

Course Code	CAT-en-ASM-X-V5R20
Available Release	V5R20
Duration	8 hours
Course Materials	English , French , German , Japanese
Level	Exercise
Audience	Mechanical Designers
Description	This course provides you with additional exercises to practice the concepts that you have learnt in the CATIA Product Design course. These exercises represent typical industrial scenarios and demonstrate how CATIA Product Design helps you to achieve your design objectives.
Objectives	Upon completion of these exercises you will have: - Refreshed your Product Design skills - Learned the recommended design methodologies to create complex designs.
Prerequisites	Students attending this course should have attended the CATIA Product Design course and the CATIA Product Design Expert course
Available Online	Yes

	CATIA Product Design Expert (ASM)
Course Code	CAT-en-ASM-A-V5R20
Available Release	V5R20
Duration	16 hours
Course Materials	English , French , German , Japanese
Level	Advanced
Audience	Mechanical Designers
Description	This course will teach you how to design parts in the context of a complex product structure using collaborative engineering methods. You will learn how to optimize CATIA's performance when working with large and complex designs. You will also learn how to generate annotations and bills of material for your assembly drawings.
Objectives	Upon completion of this course you will be able to: - Set the required CATIA options that enable you to optimize its performance for large and complex designs - Manage contextual links between product documents using publications - Create and use parameters to drive a product design - Create sections to visualize the internal product structure - Create scenes and exploded views of a product - Generate annotations and bills of material for assembly drawings
Prerequisites	Students attending this course should have knowledge of CATIA Product Design and CATIA Part Design
Available Online	Yes

	CATIA Sketcher (SKE)
Course Code	CAT-en-SKE-F-V5R20
Available Release	V5R20
Duration	8 hours
Course Materials	English , French , German , Japanese
Level	Fundamental
Audience	Mechanical Designers
Description	This course will teach you how to use the CATIA Sketcher workbench. You will learn how to create two-dimensional sketches by drawing and constraining the various geometric elements. You will also learn how to analyze the sketches and edit them.
Objectives	Upon completion of this course you will be able to: - Work in the CATIA Sketcher environment - Create 2D sketch geometry - Analyze the sketch geometry - Edit existing 2D profiles - Dimension the sketch geometry and modify it using constraints - Manage the sketches within a 3D environment
Prerequisites	Students attending this course should have knowledge of CATIA Fundamentals
Available Online	Yes

	CATIA Surface Design (GS1)
Course Code	CAT-en-GS1-F-V5R20
Available Release	V5R20
Duration	8 hours
Course Materials	English , French , German , Japanese
Level	Fundamental
Audience	Mechanical Surface Designers
Description	This course will teach you how to use the Generative Shape Design tools. You will learn how to create wireframes and surfaces. You will also learn about the concept of hybrid design and how to use it while creating wireframes and surfaces. This course covers only those Generative Shape Design tools that are available with a MD2 license.
Objectives	Upon completion of this course you will be able to: - Identify and use the tools that are specific to the Generative Shape Design workbench - Create simple reference geometry and wireframe geometry - Use the reference wireframe elements to create simple surfaces - Create a clean topology from a set of surfaces and smooth sharp edges - Detect and correct the discontinuities on curves and surfaces - Create solids from surfaces
Prerequisites	Students attending this course should have knowledge of CATIA V5 Fundamentals
Available Online	Yes

CATIA Surface Design Added Exercises (GS1)

Course Code	CAT-en-GS1-X-V5R20
Available Release	V5R20
Duration	7 hours
Course Materials	English , French , German , Japanese
Level	Exercise
Audience	Experienced Mechanical Surface Designers
Description	This course provides you with an exercise database for additional practice on CATIA Surface Design. The exercises have been created based on Industry practices. You will get to practice skills such as creating wireframes and surfaces, creating surfacic shells and solid parts, and working with multiple parts that are referencing a common part.
Objectives	Upon completion of these exercises you will be able to: - Create basic wireframes and surfaces using the recommended techniques - Create a solid part after creating the surfacic shell - Create a wireframe before creating the surfaces - Work with multiple parts that are referencing a common part containing the basic specifications
Prerequisites	Students attending this course should have knowledge of CATIA V5 Surface Design
Available Online	Yes

CATIA V5 Foundations for Aerospace Assembly Designers (V5AeA)

Course Code	CAT-en-V5AeA-F-V5R20
Available Release	V5R20
Duration	16 hours
Course Material	English
Level	Fundamental
Audience	Aerospace Structure Designers
Description	This course will introduce you to CATIA V5 assembly design. It will teach you how to manage assembly configurations and how to design and position components within the assembly. In addition you will learn how to create a structured assembly in order to best design parts in an assembly context and how to control and manage the links created between the assembly components.
Objectives	Upon completion of this course you will be able to: - Understand the terminology used in assembly design - Design structural parts in the context of an assembly - Constrain assembly components - Analyze an assembly - Annotate an assembly
Prerequisites	V5 Foundations for Aerospace Part Designers
Available Online	Yes

CATIA V5 Foundations for Aerospace Part Designers (V5AeD)

Course Code	CAT-en-V5AeD-F-V5R20
Available Release	V5R20
Duration	40 hours
Course Material	English
Level	Fundamental
Audience	Aerospace Part Designers
Description	This course will introduce you to CATIA V5. It will teach you how to create simple models from 2D sketches, and thenthe correct techniques for the creation and annotation ofcomplex solid models. It will introduce you to surface design and the concepts of part design in the context of an assembly.
Objectives	Upon completion of this course you will be able to: - Identify the appropriate CATIA V5 tools used for part design. - Plan the construction of a complex part in order to properly convey its visual and functional aspects. - Annotate parts. - Design simple surface parts. - Modify a part within the context of an assembly.
Prerequisites	Students attending this course should be familiar with Mechanical Design and Windows Operating System
Available Online	Yes

CATIA V5 Foundations for Aerospace Part Reviewers (V5AeR)

Course Code	CAT-en-V5AeR-F-V5R20
Available Release	V5R20
Duration	16 hours
Course Material	English
Level	Fundamental
Audience	Aerospace Part Reviewers
Description	This course will teach you how to use CATIA V5 workbenches. It will teach you how to review an existing part by verifying its properties,its coordinates and measurements, and how to add annotations to the parts.
Objectives	Upon completion of this course you will be able to: - Understand and use CATIA V5 interface. - Measure a part with respect to a pre-defined axis system. - Annotate an existing part. - Differentiate between parts and assemblies.
Prerequisites	Student attending this course should have knowledge of Mechanical Design and Windows Operating System.
Available Online	Yes

CATIA V5 Foundations for Body Designers (V5VB)

Course Code	CAT-en-V5VB-F-V5R20
Available Release	V5R20
Duration	56 hours
Course Materials	English , French , German
Level	Fundamental
Audience	Automotive Body Designers
Description	This course will teach you how to use the fundamental concepts in CATIA V5 to build simple automotive parts and assemblies, and make simple drawings of those parts and assemblies. You will also learn the correct solid and surface modeling methodology necessary for body design.
Objectives	Upon completion of this course you will be able to: - Understand and use the CATIA V5 interface. - Plan the construction of an automotive part in order to properly convey its visual and functional aspects. - Create simple automotive parts in CATIA V5. - Use correct solid and surface modeling methodology for body design. - Design and manage parts in the context of an assembly. - Produce simple drawings and assembly layouts.
Prerequisites	Students attending this course should have knowledge of Automotive Design
Available Online	Yes

CATIA V5 Foundations for Chassis Designers (V5VC)

Course Code	CAT-en-V5VC-F-V5R20
Available Release	V5R20
Duration	56 hours
Course Materials	English , French , German
Level	Fundamental
Audience	Automotive Chassis Designers
Description	This course will introduce the fundamental concepts in CATIA V5 that are required to build simple automotive parts and assemblies in CATIA, and how to make simple drawings of those parts and assemblies. It will introduce you to the correct solid and surface modeling methodology necessary for chassis design.
Objectives	Upon completion of this course you will be able to: - Understand the CATIA V5 interface - Plan the construction of an automotive part in order to properly convey its visual and functional aspects - Create simple automotive parts in CATIA V5 - Use correct solid and surface modeling methodology for chassis design - Understand how to design and manage parts in the context of an assembly - Produce simple drawings and assembly layouts
Prerequisites	Students attending this course should have knowledge of Automotive Design
Available Online	Yes

CATIA V5 Foundations for Powertrain Designers (V5VP)

Course Code	CAT-en-V5VP-F-V5R20
Available Release	V5R20
Duration	56 hours
Course Materials	English , French , German
Level	Fundamental
Audience	Automotive Powertrain Designers
Description	This course will teach you to use the fundamental conceptsin CATIA V5 to build simple automotive parts and assemblies, and make simple drawings of those parts and assemblies.You will also learn how to use the advanced solid modelingtechniques necessary for Powertrain design methodology.
Objectives	Upon completion of this course you will be able to: - Understand and use the CATIA V5 interface - Plan the construction of an automotive part in order to properly convey its visual and functional aspects - Create simple automotive parts in CATIA V5 - Apply advanced solid modeling techniques necessary for Powertrain design methodology - Design and manage parts in the context of an assembly - Produce simple drawings and assembly layouts
Prerequisites	Students attending this course should have knowledge of Automotive Design
Available Online	Yes

	CATIA V5 Fundamentals (V5F)
Course Code	CAT-en-V5F-F-V5R20
Available Release	V5R20
Duration	40 hours
Course Materials	Chinese , English , French , German , Japanese , Korean , Russian , Spanish
Level	Fundamental
Audience	Mechanical Designers with no CATIA V5 experience
Description	This course will teach you about CATIA V5. You will learn how to build simple parts and assemblies in CATIA, and how to make simple drawings of those parts and assemblies.
Objectives	Upon completion of this course you will be able to: - Understand and use the CATIA V5 interface - Plan the construction of a part in order to convey its visual and functional aspects - Create simple parts in CATIA V5 - Construct an assembly using the parts - Produce simple drawings and assembly layouts
Prerequisites	Students attending this course should have knowledge of Mechanical Design, and Windows Operating System
Available Online	Yes

CATIA V5 Mechanical Design Expert (V5E)

Course Code	CAT-en-V5E-A-V5R20
Available Release	V5R20
Duration	40 hours
Course Materials	Chinese , English , French , German , Japanese , Korean , Russian , Spanish
Level	Advanced
Audience	Mechanical Designers
Description	This course will teach you how to start a complex design project from its specifications (top down approach) and complete it by reusing existing data. It will focus on advanced skills and concepts that enable you to create and analyze complex parts and assemblies.
Objectives	Upon completion of this course you will be able to: - Create a complex model in CATIA V5 - Create and manage a structured model - Design parts in the context of an assembly - Re-use existing data to complete assemblies - Manage relationships between assembled parts - Analyze and annotate your design
Prerequisites	Students attending this course should have knowledge of CATIA V5 Fundamentals
Available Online	Yes

Composites Grid Approach (CPG)

Course Code	CAT-en-CPG-F-V5R20
Available Release	V5R20
Duration	24 hours
Course Material	English
Level	Fundamental
Audience	Composites Designers for Aerospace
Description	This course will introduce you to the Grid approach. You will generate plies, modify geometry, and create a solid or a top surface using the ply geometry. By the end of this course you will be able to create and modify a composite part using the Composites Grid Design approach.
Objectives	Upon completion of this course you will be able to: - Understand the concept of grid approach in Composites DesignUnderstand the concept of grid approach in Composites Design - Generate plies using the grid approachGenerate plies using the grid approach - Modify the ply geometryModify the ply geometry - Create a solid or a top surface using the ply geometry Create a solid or a top surface using the ply geometry - Create and modify a composite part using the Composites Grid Design approach - Create and modify a composite part using the Composites Grid Design approach
Prerequisites	Students attending this course should have knowledge of Part Design, Assembly Design, Wireframe and Surface Design, Drafting, and Composites Part Design.
Available Online	Yes

	Composites Part Engineering (CPE)
Course Code	CAT-en-CPE-F-V5R20
Available Release	V5R20
Duration	24 hours
Course Material	English
Level	Fundamental
Audience	Composites Designers
Description	This course will teach you how to build composite parts in the context of the engineering design process, from Preliminary Design to Engineering Detail Design.
Objectives	Upon completion of this course you will be able to: - Build composite parts from Preliminary Design to Engineering Detail Design
Prerequisites	Students attending this course should have knowledge of Part Design, Assembly Design, Wireframe and Surface Design, and Drafting
Available Online	Yes

Composites Part Manufacturing (CPM)

Course Code	CAT-en-CPM-F-V5R20
Available Release	V5R20
Duration	16 hours
Course Material	English
Level	Fundamental
Audience	Composites Manufacturing Designers
Description	This course will teach you how to build composite parts for manufacturing detail design
Objectives	Upon completion of this course you will be able to: - Create Composites parts from Preliminary Design to Engineering Detail Design
Prerequisites	Students attending this course should have knowledge of Part Design, Assembly Design, Wireframe and Surface Design, and Drafting
Available Online	Yes

	Functional Molded Parts (FMP)
Course Code	CAT-en-FMP-F-V5R20
Available Release	V5R20
Duration	8 hours
Course Material	English
Level	Fundamental
Audience	Molded Part Designers
Description	This course will teach you how to use the Functional Molded Part workbench to create molded parts using the basic features and to finalize the part using additional dress-up features. You will also be taught the multi-body approach and will finally learn how to extract cores and cavity from the final part.
Objectives	Upon completion of this course you will be able to: - Upon Completion of this course you will be able to: - Define the main shapes of a molded part in terms of material added or removed from the mold of the part. - Add functional features such as, ribs or cutouts to the part. - Finalize the molded part using the feature modifiers such as fillets or patterns. - Use the multi-body approach. - Extract cores, cavities and other EDM inserts from the final part.
Prerequisites	CATIA V5 Fundamentals
Available Online	Yes

	Healing Assistant (HA1)
Course Code	CAT-en-HA1-F-V5R20
Available Release	V5R20
Duration	8 hours
Course Material	English
Level	Fundamental
Audience	Tooling Designers, Mechanical Designers, and Surface Designers
Description	This course will teach you how to use the CATIA Healing Assistant workbench to analyze and repair imported CAD data (IGES 3D or CATIA V4 files). You will learn how to compare two versions of a Part. You will also learn how to customize the workbench to suit your needs.
Objectives	Upon completion of this course you will be able to: - Analyze the imported data - Repair the imported data - Compare two versions of a Part - Customize the workbench to suit your needs
Prerequisites	Students attending this course should have basic knowledge of Wireframe and Surfaces
Available Online	No

Mold Tooling Design (MTD)

Course Code	CAT-en-MTD-F-V5R20
Available Release	V5R20
Duration	8 hours
Course Material	English
Level	Fundamental
Audience	Mold Tooling Designers
Description	This course will teach you how to design an injection mold and its components using standard and user-defined catalogs. You will learn the design process with the help of industrial examples.
Objectives	Upon completion of this course you will be able to: - Create a mold base using guided and fixed components - Build a Plastic Injection Mold assembly from scratch
Prerequisites	Students attending this course should have knowledge of CATIA V5 fundamentals and Tooling Design fundamentals
Available Online	No

Part Design Features Recognition (FR1)

Course Code	CAT-en-FR1-F-V5R20
Available Release	V5R20
Duration	4 hours
Course Material	English
Level	Fundamental
Audience	Mechanical Designers
Description	This course will teach you about Feature Recognition functionality of Part Design workbench. You will learn to build a comprehensive V5 data structure for solids whose specifications are lost or are unreachable. You will also learn how to perform flexible local design modifications on all kinds of models.
Objectives	Upon completion of this course you will be able to: - Build comprehensive V5 data structures for solids using the Feature Recognition functionality of Part Design workbench - Build data structure for solids that have been imported from other CAD systems
Prerequisites	Students attending this course should have knowledge of CATIA V5 fundamentals and CATIA Part Design.
Available Online	No

Tooling Design (TG1)

Course Code	CAT-en-TG1-F-V5R20
Available Release	V5R20
Duration	16 hours
Course Material	English
Level	Fundamental
Audience	Tooling Designers
Description	This course teaches you the basics of the tool design. You will also learn to create and instantiate different components of the mold.
Objectives	Upon completion of this course you will be able to: - Create the die and mold components using Mold Tool Design workbench - Instantiate the components in a die or mold structure
Prerequisites	Students attending this course should have knowledge of CATIA V5 fundamentals
Available Online	No

CATIA - Virtual Design

CATIA Product Synthesis

CATIA Knowledge Fundamentals (KWF)

Course Code	CAT-en-KWF-F-V5R20
Available Release	V5R20
Duration	8 hours
Course Materials	English , French , German , Japanese
Level	Fundamental
Audience	CATIA V5 Users
Description	This course will teach you how to embed knowledge within design and leverage it to automate modifications. You will learn how to create and use parametric parts and assemblies.
Objectives	Upon completion of this course you will be able to: - Use and manage the Knowledgeware working environment - Understand how collaborative work affects knowledge features - Use parameters, formulae, and design tables - Create parametric parts and assemblies - Share parameters and reuse relations
Prerequisites	Students attending this course should have knowledge of CATIA V5 Part Design and CATIA V5 Assembly Design
Available Online	Yes

	Knowledge Advisor (KWA)
Course Code	CAT-en-KWA-F-V5R20
Available Release	V5R20
Duration	8 hours
Course Material	English
Level	Fundamental
Audience	CAD Engineers
Description	This course will teach you how to embed knowledge in you designs using Knowledge Advisor tools. You will also learn how to leverage the knowledge to reduce errors and automate design modifications.
Objectives	Upon completion of this course you will be able to: - Upon Completion of this course you will be able to: - Create and use User Parameters and Formulae - Create Rules, Checks and Reactions to control your design - Create and use Design Tables to automate the design modifications. - Use miscellaneous Knowledge Advisor tools.
Prerequisites	Students attending this course should have knowledge of CATIA V5 Fundamentals
Available Online	Yes

Knowledge Based Engineering - Advanced (KBE)

Course Code	CAT-en-KBE-A-V5R20
Available Release	V5R20
Duration	12 hours
Course Material	English
Level	Advanced
Audience	CAD Engineers, Knowledge Engineers, Analysts.
Description	This course will teach you how to build up the design knowledge, store it in the Rule Bases and leverage it across the company to ensure design compliance with established standards. You will also learn how to use the Product Engineering Optimization workbench to optimize your designs by formulating and solving an optimization problem, considering the constraints and conditions involved in the problem.
Objectives	Upon completion of this course you will be able to: - Create Expert Rules and Checks and store them in the Rule Bases - Store the Rule Bases in a Catalog - Instantiate a Rule Base - Automate your design modifications using various Knowledgeware Expert tools - Define, solve, and analyze an optimization problem using the CATIA Product Engineering Optimizer workbench
Prerequisites	Students attending this course should have knowledge of CATIA V5 Basics and CATIA V5 Knowledgeware Fundamentals
Available Online	No

Knowledge Based Engineering - Basic (KBE)

Course Code	CAT-en-KBE-F-V5R20
Available Release	V5R20
Duration	24 hours
Course Material	English
Level	Fundamental
Audience	CAD Engineers, Knowledge Engineers.
Description	This course will teach you how to embed knowledge within your designs using the Knowledge Advisor tools. You will also learn how to create and store the interactive features and then to reuse and adapt them to a new context.
Objectives	Upon completion of this course you will be able to: - Identify and use various terminologies used in Knowledgeware. - Embed knowledge in your design and control it using Parameters, Formulae, Rules, Checks and Reactions. - Create and reuse Power Copies and User Defined Features. - Create and store Knowledge Driven design templates so as to instantiate them in a new context. - Create and reuse advanced instantiation features like Knowledge Pattern.
Prerequisites	Students attending this course should have knowledge of CATIA V5 Fundamentals.
Available Online	Yes

	Knowledge Expert (KWE)
Course Code	CAT-en-KWE-F-V5R20
Available Release	V5R20
Duration	4 hours
Course Material	English
Level	Fundamental
Audience	CAD Engineers
Description	This course will show you how to build up and share corporate knowledge stored in rule bases, and leverage it across the company to ensure design compliance with established standards.
Objectives	Upon completion of this course you will be able to: - Become familiar with the Knowledgeware working environment, how it can be accessed, the terminology that will be used and the Settings. - Embed complex design knowledge in a parametric part using Knowledgeware expert rules checks and reactions. - Automate your designs modifications using various Knowledgeware Expert tools.
Prerequisites	Students attending this course should have knowledge of CATIA V5 Basics and CATIA V5 Knowledgeware fundamentals
Available Online	No

	Product Engineering Optimizer (PEO)
Course Code	CAT-en-PEO-F-V5R20
Available Release	V5R20
Duration	8 hours
Course Material	English
Level	Fundamental
Audience	CAD Engineers, Analysts.
Description	This course will teach you how to use the Product Engineering Optimization workbench to optimize your designs by formulating and solving an optimization problem, considering the constraints and conditions involved in the problem.
Objectives	Upon completion of this course you will be able to: - Formulate an optimization problem - Select appropriate algorithm to solve the Optimization Problem - Analyze the results of optimization - Use miscellaneous Product Engineering Optimizer workbench tools
Prerequisites	Students attending this course should have knowledge of CATIA V5 Fundamentals
Available Online	No

Product Knowledge Template (PKT)

Course Code	CAT-en-PKT-F-V5R20
Available Release	V5R20
Duration	8 hours
Course Material	English
Level	Fundamental
Audience	CAD Engineers, Knowledge Engineers.
Description	This course will teach you how to create and store interactive features and then reuse and adapt them to a new context.
Objectives	Upon completion of this course you will be able to: - Create and reuse Power Copies and User Defined Features. - Create and reuse advanced instantiation features like Knowledge Pattern. - Create Part and Assembly Templates and reuse them in a new context.
Prerequisites	Students attending this course should have knowledge of CATIA V5 Fundamentals and Knowledgeware Basics.
Available Online	Yes

CATIA - Virtual Design

CATIA Shape Design and Styling

Automotive Body in White Fastening (ABF)

Course Code	CAT-en-ABF-F-V5R20
Available Release	V5R20
Duration	16 hours
Course Material	English
Level	Fundamental
Audience	CATIA V5 Automotive Body Designers
Description	This course will teach you how to create or modify a car body in an associative styling and engineering context. You will learn how to create an associative shape, place welding points on it and then assemble it with other parts. In addition, you will learn how to generate drawings and fastener documentation from the resulting assembly.
Objectives	Upon completion of this course you will be able to: - Prepare assemblies for fastener creation - Create and manage Body in White (BiW) fasteners - Check and analyze the applied design rules - Create annotated drawings - Output assembly and fastener data
Prerequisites	- Surface Design Expert - Product Design - Drafting
Available Online	Yes

	CATIA Digitized Shape Editor (DSE)
Course Code	CAT-en-DSE-F-V5R20
Available Release	V5R20
Duration	8 hours
Course Material	English
Level	Fundamental
Audience	Shape Designers
Description	This course introduces you to the CATIA Digitized Shape Editor interface and basic tools. You will be taught how to import the digitized data (scans or clouds of points) and you will familiarize yourself with the Mesh Creation and extracting characteristic curves. This course focuses on the Reverse engineering techniques.
Objectives	Upon completion of this course you will be able to: - Import and process digitized point cloud data - Create tessellated mesh on the point cloud data - Extract characteristic curves from the data - Export the result in the popular file formats
Prerequisites	Students attending this course should be familiar with the CATIA V5 interface
Available Online	Yes

	CATIA For Design Foundations (CDF)
Course Code	CAT-en-CDF-F-V5R20
Available Release	V5R20
Duration	12 hours
Course Material	English
Level	Fundamental
Audience	Industrial designers
Description	This course will teach you how to use CATIA workbenches. You will learn how to construct 3D parts and create assemblies in CATIA. You will also learn to create drawings of those parts and assemblies. You will also learn the basic Wireframe and Surface creation.
Objectives	Upon completion of this course you will be able to: - Understand and use the CATIA V5 interface. - Plan the construction of a part in order to convey its visual and functional aspects. - Create simple parts in CATIA V5 including basic surface geometry. - Construct an assembly managing the parts. - Produce simple part drawings and assembly layouts.
Prerequisites	Students attending this course should have knowledge of Windows operating system
Available Online	No

	CATIA Generative Shape Design V5R20 Update (HD2)
Course Code	CAT-en-HD2-U-V5R20
Available Release	V5R20
Duration	1 hour
Course Material	English
Level	Update
Audience	Surface Designers
Description	This course will teach you how to use the enhanced V5R20 functionalities of CATIA Generative Shape Design workbench.
Objectives	Upon completion of this course you will be able to: - Use the repeat option while creating Parallel Curves - Use the enhancements in Offset command to identify the severity of errors, find their exact location, and perform temporary analysis
Prerequisites	Students attending this course should have knowledge of V5R19 CATIA Generative Shape Design
Available Online	Yes

	CATIA Imagine and Shape (IMA)
Course Code	CAT-en-IMA-F-V5R20
Available Release	V5R20
Duration	8 hours
Course Material	English
Level	Fundamental
Audience	Product Stylists, Industrial Designers
Description	This course will teach you how to use the Imagine and Shape workbench in CATIA to create new product shapes. You will also learn how to improve product styles.
Objectives	Upon completion of this course you will be able to: - Identify and use the tools specific to the Imagine and Shape workbench - Create new product shapes - Improve product styles - Modify the product style surfaces using Shape Design tools
Prerequisites	Students attending this course should have knowledge of CATIA Generative Shape Design
Available Online	Yes

	CATIA Surface Design Expert (GSD)
Course Code	CAT-en-GSD-A-V5R20
Available Release	V5R20
Duration	16 hours
Course Materials	English , French , German , Japanese
Level	Advanced
Audience	Mechanical Surface Designers
Description	This course will first recall and summarize the tools taught in the Surface Design course. It will then capitalize on this knowledge and teach you advanced surface creation tools, quality checking and correction techniques, and surface creation in a multi-model environment. This course covers only those Generative Shape Design tools that are specific to the HD2 license.
Objectives	Upon completion of this course you will be able to: - Identify which tools of the Generative Shape Design workbench are common to both MD2 and HD2 licenses - Identify and use the Generative Shape Design tools that are specific to the HD2 license - Create advanced and parameterized swept surfaces - Perform advanced surface analysis and gap correction - Improve the designed geometry's quality and stability
Prerequisites	Students attending this course should have attended the CATIA Surface Design course
Available Online	Yes

CATIA Surface Design Expert Added Exercises (GSD)

Course Code	CAT-en-GSD-X-V5R20
Available Release	V5R20
Duration	14 hours
Course Materials	English , French , German , Japanese
Level	Exercise
Audience	Mechanical Surface Designers
Description	This course provides you with an extensive database of exercises for additional practice on advanced topics of CATIA Surface Design. The exercises have been created based on Industry practices.
Objectives	Upon completion of these exercises you will have: - Refreshed your Surface Design skills - Learned the recommended design methodologies to create complex designs
Prerequisites	Students attending this course should have attended the CATIA Surface Design Expert course
Available Online	Yes

	CATIA V5 for Surfaces (V5S)
Course Code	CAT-en-V5S-F-V5R20
Available Release	V5R20
Duration	24 hours
Course Materials	English , French , German , Japanese
Level	Fundamental
Audience	- Users familiar with CATIA V5 Fundamentals - Users who need to learn how to create advanced Mechanical Surfaces
Description	This course will teach you how to create curves and surfaces using the GSD workbench. You will learn how to analyse the wireframe and surface quality and rectify defects, if any. You will learn to work in a multimodel environment with published surfaces.
Objectives	Upon completion of this course you will be able to: - Understand and use the tools in the Generative Shape Design workbench - Create good quality curves based on a sound and improved wireframe geometry - Assemble, relimit and connect the surfaces to get a topology - Analyze surface quality and rectify the defects - Manage surfaces in a multimodel environment
Prerequisites	Students attending this course should have knowledge of CATIA V5 Fundamentals
Available Online	Yes

	Developed Shapes (DL1)
Course Code	CAT-en-DL1-F-V5R20
Available Release	V5R20
Duration	4 hours
Course Material	English
Level	Assessment
Audience	Surface Designers
Description	This course will teach you how to use CATIA Developed Shape functionalities to create unfolded surfaces from a ruled surface . You will learn how to develop wires and points onto a revolution surface.
Objectives	Upon completion of this course you will be able to: - Create unfolded surfaces from a ruled surface using CATIA Developed Shape functionalities - Develop wires and points onto a revolution surface
Prerequisites	Students attending this course should have knowledge of CATIA V5 Fundamentals and Generative Shape Design
Available Online	Yes

	FreeStyle Shaper, Optimizer & Profiler (FSS)
Course Code	CAT-en-FSS-F-V5R20
Available Release	V5R20
Duration	12 hours
Course Material	English
Level	Fundamental
Audience	Surface Designers
Description	This course will teach you how to create flawless, styled shapes from scratch using three-dimensional free-form curves and surfaces or using digitized data. You will also learn how to analyze and improve the quality of existing curves and surfaces.
Objectives	Upon completion of this course you will be able to: - Create styled shapes using digitized data - Create surfaces using a curve-based approach - Create surfaces using a surface-based approach - Analyze and correct the curve quality - Analyze and correct the surface quality
Prerequisites	Students attending this course should have knowledge of CATIA Surface Design
Available Online	Yes

	Freestyle Sketch Tracer (FSK)
Course Code	CAT-en-FSK-F-V5R20
Available Release	V5R20
Duration	4 hours
Course Material	English
Level	Fundamental
Audience	Shape Designers
Description	This course will teach you how to import images in the CATIA V5 environment and use them as a background or a basis for your design.
Objectives	Upon completion of this course you will be able to: - Import an image into CATIA V5 - Position the image in the CATIA V5 environment - Use the image as a background or as a basis for the design
Prerequisites	Students attending this course should have knowledge of CATIA V5 fundamentals
Available Online	No

Generative Shape Design Optimizer (GSO)

Course Code	CAT-en-GSO-F-V5R20
Available Release	V5R20
Duration	8 hours
Course Material	English
Level	Fundamental
Audience	Surface Designers
Description	This course will teach you how to optimize surface built in Generative Shape Design workbench by morphing and deforming existing surfaces.You will learn about volumes and tools dedicated to BIW applications.
Objectives	Upon completion of the course you will learn to: - Develop Shapes - Morph Shapes - Create Junctions (BIW application) between surfaces - Work with Volumes
Prerequisites	Students attending this course should have knowledge of CATIA Surface Design.
Available Online	Yes

	Quick Surface Reconstruction (QSR)
Course Code	CAT-en-QSR-F-V5R20
Available Release	V5R20
Duration	8 hours
Course Material	English
Level	Fundamental
Audience	Surface Designers
Description	This course teaches you how to use powerful CATIA features in your Reverse Engineering phase to quickly create surfaces using a given Point Cloud data. All the tools available in the workbench are discussed with adequate details to help you to quickly grasp the basics. The course provides you with real time industrial examples for your practice.
Objectives	Upon Completion of this course you will be able to: - Create Scans from point cloud data - Create curves from scans - Create surfaces from scans - Create model and fillet model - Create Deviation analysis and Annotations
Prerequisites	- Students attending this course should have experience in the following domain(s): - CATIA V5 fundamentals, Digitized Shape Editor and Surface Design
Available Online	No

	Realistic Shape Optimizer (RSO)
Course Code	CAT-en-RSO-F-V5R20
Available Release	V5R20
Duration	4 hours
Course Material	English
Level	Fundamental
Audience	Surface designers, Tooling designers
Description	This course will teach you how to perform digitized morphing on surfaces using Realistic Shape Optimizer tools considering the analysis results. You will also learn how to update the Digitized Morphing features as per the changes in the displacement file.
Objectives	Upon completion of this course you will be able learn how to deform a surface using the displacement file resulting from Finite Element Analysis.
Prerequisites	Students attending this course should have knowledge of the basics of wireframe and surfaces creation
Available Online	No

	Shape Sculptor (DSS)
Course Code	CAT-en-DSS-F-V5R20
Available Release	V5R20
Duration	8 hours
Course Material	English
Level	Fundamental
Audience	Style designers, Modelers
Description	This course will teach you how to use the Shape Sculptor application,how to import, analyze, enhance the meshes, and how to modify them by adding details or deforming shapes.
Objectives	Use the Shape Sculptor application - Import, analyze, enhance meshes - Modify the meshes by adding details or deforming shapes
Prerequisites	Students attending this course should have knowledge of CATIA V5 fundamentals
Available Online	Yes

Cross-Brand
Digital Mock-Up

	Digital Mock-Up Basics (DMB)
Course Code	DMU-en-DMB-F-V5R20
Available Release	V5R20
Duration	4 hours
Course Materials	English , French , German , Japanese
Level	Assessment
Audience	Mechanical Designers, Industrial Designers, Managers
Description	This course will help you to understand the capabilities of each CATIA V5 Digital Mock-Up workbench and analyze which one suits your needs in a given situation. You will learn how to visualize and inspect a complex assembly in order to investigate the problem areas and highlight critical points.
Objectives	Upon completion of this course you will be able to: - Understand and use the capabilities of the Digital Mock-Up workbenches - Manage assembly components and explore their mock-up details - Manipulate the view points - Perform measurements - Highlight critical areas using 2D and 3D annotations - Link information to external files
Prerequisites	Students attending this course should have knowledge of CATIA Fundamentals
Available Online	Yes

	Digital Mock-Up Navigator (DMN)
Course Code	DMU-en-DMN-F-V5R20
Available Release	V5R20
Duration	8 hours
Course Materials	English , French , German , Japanese
Level	Fundamental
Audience	Mechanical Designers, Managers
Description	This course will teach you how to manipulate a Digital Mock-Up in the context of an engineering review. You will also learn how to create simulations for review presentations.
Objectives	Upon completion of this course you will be able to: - Use the basic and advanced functionalities of the DMU Navigator workbench - Modify the properties of components and position them - Create movies using the simulations - Manage the mock-up configurations using scenes - Save specific mock-up configurations for analysis - Create annotated views of a mock-up for sharing
Prerequisites	Students attending this course should have attended the DMU Basics course
Available Online	Yes

	Digital Mock-Up Optimizer (DMO)
Course Code	DMU-en-DMO-F-V5R20
Available Release	V5R20
Duration	4 hours
Course Materials	English , French , German , Japanese
Level	Fundamental
Audience	Mechanical Designers, Engineering Managers
Description	This course will teach you how to improve productivity by computing an optimized data geometric representation for rapid mock-up verification in the context of a collaborative design review environment.
Objectives	Upon completion of this course you will be able to: - Indentify which DMU settings and capabilities are used to manage simplified representations - Select and use a simplified representation - Compute thickness and offset representations - Compute swept and vibration volumes - Compute Free Space and 3D Cut representations for performing measurements
Prerequisites	Students attending this course should have attended the DMU Basics and DMU Space Analysis courses
Available Online	Yes

Digital Mock-Up Space Analysis (SPA)

Course Code	DMU-en-SPA-F-V5R20
Available Release	V5R20
Duration	4 hours
Course Materials	English , French , German , Japanese
Level	Fundamental
Audience	Mechanical Designers, Engineering Managers
Description	This course will teach you how to review and validate designs throughout the product lifecycle, from design in context to maintenance review. You will also learn how to highlight interference problems and verify internal component clearances.
Objectives	Upon completion of this course you will be able to: - Perform measurements in the context of a digital mock-up - Create views to see the inner details of a digital mock-up - Perform interference checks to identify clashes and contacts, and to verify component clearances - Compare different versions of a digital mock-up
Prerequisites	Students attending this course should have attended the DMU Basics course
Available Online	Yes

DMU Engineering Analysis Review (ANR)

Course Code	DMU-en-ANR-F-V5R20
Available Release	V5R20
Duration	2 hours
Course Material	English
Level	Fundamental
Audience	Mechanical Designers
Description	This course will teach you how to analyze and review the results of the analysis performed by CATIA Analysis and Simulation workbench or by any third party application. You will also learn how to use the functionalities like Animation, Extrema Detection, Images Layout, and Cut Plane Analysis to manage your results.
Objectives	Upon completion of this course you will be able to: - Review the analysis performed using CATIA Analysis and Simulation workbench or using third party applications - Generate Result Images and Reports for Analysis - Manage the results using various functionalities like Animation, Extrema Detection, Images Layout, and Cut Plane Analysis.
Prerequisites	Students attending this course should have knowledge of DMU Basics, DMU Navigator, DMU Space Analysis
Available Online	No

	DMU Fitting Simulator (FIT)
Course Code	DMU-en-FIT-F-V5R20
Available Release	V5R20
Duration	4 hours
Course Material	English
Level	Fundamental
Audience	Designers (CATIA P2 users only)
Description	This course will teach you how to efficiently define the process of mounting and un-mounting parts of your assemblies. You will learn how to optimize the process for ease of assembly and maintenance.
Objectives	Upon completion of this course you will be able to: - Understand and use the capabilities of the Fitting Simulator workbench - Create tracks to define the motion path of the components - Create Sequences to define the order in which the tracks and actions will take place - Play the Sequences - Perform clash analysis during the motion of components
Prerequisites	Students attending this course should have knowledge of DMU Basics and DMU Space Analysis
Available Online	No

	DMU Kinematics Simulator (KIN)
Course Code	DMU-en-KIN-F-V5R20
Available Release	V5R20
Duration	8 hours
Course Material	English
Level	Fundamental
Audience	Designers (CATIA P2 users only)
Description	This course will teach you how to design mechanisms using an existing assembly. You will also learn how to simulate and analyze the mechanisms for clashes and perform kinematic analysis.
Objectives	Upon completion of this course you will be able to: - Understand and use the capabilities and the general processes followed in the DMU Kinematics workbench - Define a mechanism using an existing assembly - Simulate the mechanism - Analyze the mechanism for clashes - Perform kinematic analysis - Sequence multiple mechanisms
Prerequisites	Students attending this course should have knowledge of DMU Basics and DMU Space Analysis
Available Online	No

Cross-Brand
PLM Express

CATIA PLM Express Fundamentals (CTP)

Course Code	CRB-en-CTP-F-V5R20
Available Release	V5R20
Duration	40 hours
Course Materials	English , French , German , Japanese
Level	Fundamental
Audience	Mechanical Designers with no CATIA V5 experience.
Description	This course will teach you how to use CATIA Team PLM configuration workbenches to build simple parts and assemblies. You will learn how to make simple drawings of those parts and assemblies. You will also learn about basic Wireframe and Surface creation.
Objectives	Upon completion of this course you will be able to: - Understand and use the CATIA V5 interface. - Plan the construction of a part in order to convey its visual and functional aspects. - Create simple parts in CATIA V5. - Construct an assembly managing the parts. - Produce simple drawings and assembly layouts.
Prerequisites	- Students attending this course should have knowledge of Mechanical Design - The Windows operating system
Available Online	Yes

CATIA PLM Express Fundamentals - Basic Surface (CTPB)

Course Code	CRB-en-CTPB-F-V5R20
Available Release	V5R20
Duration	40 hours
Course Materials	English , French , German , Japanese
Level	Fundamental
Audience	Mechanical Designers with no CATIA V5 experience.
Description	This course will teach you how to use the CATIA Team PLM configuration workbench to build simple parts and assemblies in CATIA, and make simple drawings of those parts and assemblies. You will also learn how to create the basic wireframe and surface.
Objectives	Upon completion of this course you will be able to: - Understand and use the CATIA V5 interface - Plan the construction of a part in order to properly convey its visual and functional aspects - Create simple parts in CATIA V5 including basic surface geometry - Construct an assembly managing the parts - Produce simple drawings and assembly layouts
Prerequisites	- Students attending this course should have knowledge of Mechanical Design - The Windows operating system
Available Online	Yes

CATIA PLM Express Fundamentals - Surfaces (CTPS)

Course Code	CRB-en-CTPS-F-V5R20
Available Release	V5R20
Duration	40 hours
Course Materials	English , French , German , Japanese
Level	Fundamental
Audience	Mechanical Designers with no CATIA V5 experience.
Description	This course will teach you how to use the CATIA Team PLM configuration workbench to build simple parts and assemblies in CATIA, and make simple drawings of those parts and assemblies. You will also learn how to create the basic wireframe and surface.
Objectives	Upon completion of this course you will be able to: - Understand and use the CATIA V5 interface - Plan the construction of a part in order to properly convey its visual and functional aspects - Create simple parts in CATIA V5 including basic surface geometry - Construct an assembly managing the parts - Produce simple drawings and assembly layouts
Prerequisites	Students attending this course should have knowledge of Mechanical Design and Windows operating system.
Available Online	Yes

	ENOVIA SmarTeam - CATIA PLM Express Fundamentals (CTPE)
Course Code	CRB-en-CTPE-F-V5R20
Available Release	V5R20
Duration	40 hours
Course Material	English
Level	Fundamental
Audience	Mechanical Designers with no CATIA V5 experience.
Description	This course will teach you how to use the CATIA Team PLM configuration workbench to build simple parts and assemblies in CATIA, and make simple drawings of those parts and assemblies.You will also learn how to create the basic wireframe and surface.
Objectives	Upon completion of this course you will be able to: - Understand and use the CATIA V5 interface. - Make a connection with ENOVIA SmarTeam. - Work with database and vaults instead of local folders. - Plan the construction of a part in order to properly convey its visual and functional aspects. - Create simple parts in CATIA V5 including basic surface geometry. - Construct an assembly managing the parts. - Produce simple drawings and assembly layouts. - Manage the data through ENOVIA SmarTeam.
Prerequisites	- Students attending this course should have knowledge of Mechanical Design - and the Windows operating system.
Available Online	Yes

Cross-Brand
Web-Based Learning

	Companion Studio (WTR)
Course Code	WLS-en-WTR-F-V5R20
Available Release	V5R20
Duration	16 hours
Course Material	English
Level	Fundamental
Audience	New STUDIO Users
Description	This Course will teach you how to use the Companion STUDIO- an authoring tool for Companion Courses, based on the Instructional design aspects. You will learn how to create your workspace, projects and components. You will also learn how to create Skillets,Job Aids, and courses with these building blocks and refine and optimize your course structure.
Objectives	Upon completion of this course you will be able to: - Create and manage companion projects and components using Companion STUDIO tools and PowerPoint, HTML and Word as content editors - Create and manage a course structure - Create and modify skillets and jobaids - Create simulations and assessments - Create and manage data attachments in the skillet - Publish the course
Prerequisites	None
Available Online	No

	Companion Studio - Advanced (WTR)
Course Code	WLS-en-WTR-A-V5R20
Available Release	V5R20
Duration	4 hours
Course Material	English
Level	Advanced
Audience	Companion Studio users
Description	This course will will teach you the to design and implement the complex architecture and ranslation mechanism for courseware development projects. You will also learn how to managae visibility of learning objects, licenses and various adminstrative functions of STUDIO.
Objectives	Upon completion of this course, you will be able to: - Design and Implement the complex architecture for courseware projects - Edit curriculum and manage visibility of learning objects - Implement translation mechanism in courseware development - Manage licenses for courseware projects - Manage administrative functions of the Studio
Prerequisites	Students attending this course must have attended the Companion Studio training.
Available Online	No

DELMIA - Digital Manufacturing and Production

DELMIA Assembly

	Assembly Process Planner (APN)
Course Code	DEL-en-APN-F-V5R20
Available Release	V5R20
Duration	16 hours
Course Material	English
Level	Fundamental
Audience	Mechanical and Industrial Engineers, Assembly Planners
Description	This course will teach you to create manufacturing assembly process plans rapidly with easy-to-use tools. You will learn to use the engineering Bill of Materials or a manufacturing assembly template to create the initial process and resulting manufacturing assembly structure. Using Assembly Spec Tree editor you can visualize the manufacturing assembly structure which can be quickly refined with intuitive drag???and-drop capabilities for parts.
Objectives	Upon the completion of this course you will be able to: - Author the assembly operations, and the resulting manufacturing assemblies - Balance part and assembly distribution between assembly operations
Prerequisites	Students attending this course should have knowledge of CATIA V5 fundamentals and E5 Process Engineer.
Available Online	No

Assembly Process Planner - Auto (APA)

Course Code	DEL-en-APA-F-V5R20
Available Release	V5R20
Duration	16 hours
Course Material	English
Level	Fundamental
Audience	Mechanical and Industrial Engineers, Assembly Planners
Description	This course will teach you to create manufacturing assembly process plans rapidly with easy-to-use tools. You will learn to use the engineering Bill of Materials or a manufacturing assembly template to create the initial process and resulting manufacturing assembly structure. Using Assembly Spec Tree editor you can visualize the manufacturing assembly structure which can be quickly refined with intuitive drag???and-drop capabilities for parts.
Objectives	Upon the completion of this course you will be able to: - Author the assembly operations, and the resulting manufacturing assemblies - Balance part and assembly distribution between assembly operations
Prerequisites	Students attending this course should have knowledge of CATIA V5 fundamentals and E5 Process Engineer
Available Online	No

	DPM Assembly (ASY)
Course Code	DEL-en-ASY-F-V5R20
Available Release	V5R20
Duration	24 hours
Course Material	English
Level	Fundamental
Audience	Simulation, Industrial, Mechanical Engineers
Description	This course will teach you how to create simulations for an Assembly Project used in a stand alone mode using a task-based approach. You will learn the commands, options, and menus within the context of completing a design task with the help of case studies illustrating these precesses.
Objectives	Upon completion of this course you will be able to: - Create the working environment - Create the process plan - Create and enhance the simulation - Analyze movement - Create output files - Conduct tool validation
Prerequisites	Students attending this course should have knowledge of V5 fundamentals and Mechanical Engineering
Available Online	No

DELMIA - Digital Manufacturing and Production

DELMIA Human

	Human Option (HSO)
Course Code	DEL-en-HSO-F-V5R20
Available Release	V5R20
Duration	24 hours
Course Material	English
Level	Fundamental
Audience	New DELMIA V5 Users with DFA or manufacturing Assembly responsibilities.
Description	Human Option is a brief introduction to a powerful set of tools for simulating individuals in a manufacturing context without extensive ergonomic analysis. Users create manikins, manipulate them, modify their dimensions, and realize joint movements. Then the User is engaged in putting the manikin into DPM Assembly for tracking and Robotics for establishing I/O signals. This course will also demonstrate the expanded capability for walking and analyzing the manikin actions within the project.
Objectives	Upon completion of this course you will learn how to: - Create the Working Environment - Create a Manikin and Workspace - Performing Human Task Simulation
Prerequisites	Students attending this course must have knowledge of mechanical engineering and Windows operating system.
Available Online	No

	V5 Ergonomics (HUM)
Course Code	DEL-en-HUM-F-V5R20
Available Release	V5R20
Duration	32 hours
Course Material	English
Level	Fundamental
Audience	New DELMIA V5 Users with DFA or manufacturing Assembly responsibilities
Description	The Human Solutions software provides an accurate simulation of humans and their work environment to ensure natural operation tailored to the necessary tasks. The software consists of a number of tools (such as Human Builder) that allow you to create, manipulate and analyze how manikins interact with a product and environment.
Objectives	Upon completion of this course, you will learn initial aspects of preparing a self-contained human simulation for an Assembly project. You will also learn simulation of humans and their work environment to ensure natural operation tailored to the necessary tasks
Prerequisites	- Students attending this course should have the following experience: - Mechanical engineering experience - Experience with the Windows operating system
Available Online	No

DELMIA - Digital Manufacturing and Production

DELMIA Lofting

	DPM Structure Lofting (DST)
Course Code	DEL-en-DST-F-V5R20
Available Release	V5R20
Duration	40 hours
Course Material	English
Level	Fundamental
Audience	Mechanical and Industrial Engineers, Lofters
Description	This course will teach you how to perform lofting in 3D environment, addressing the manufacturing requirements for the high-end shipyards that utilize upstream process planning. You will learn to generate and navigate through the in-process models, showing the interim products at each stage of the manufacturing process.
Objectives	Upon completion of this course you will be able to perform: - Joining operation - Initial marking and cutting operation - Plate forming operation - Profile bending operation - Extracting Workshop documents
Prerequisites	Students attending this course should have knowledge of CATIA V5 fundamentals and E5 Process Engineer
Available Online	No

DELMIA - Digital Manufacturing and Production

DELMIA Machining

DPM Machining Process Planner (MPP)

Course Code	DEL-en-MPP-F-V5R20
Available Release	V5R20
Duration	24 hours
Course Material	English
Level	Fundamental
Audience	Process Planners, Mechanical and Industrial Engineers
Description	This course will teach you how to define and assign all relevant parameters; home positions, travel limits, kinematics, thus enabling a unique definition of an NC Machine processes. The resultant NC machines can be used for all machining applications like planning, NC Detailing, post-processing, verification and simulation.
Objectives	Upon completion of this course you will be able to: - Create a working environment - Create the Process - Create and detail the Process Plan - Verify the Process - Enhance the Process Plan - Create Output files - Create and edit Lathe Process Plan - Create process plan for Inseperable Assemblies - Use the Manufacturing Hub to map processes
Prerequisites	Students attending this course should have knowledge of V5 fundamentals, machining terms and process planning.
Available Online	No

	NC Machine Tool Builder (MBG)
Course Code	DEL-en-MBG-F-V5R20
Available Release	V5R20
Duration	20 hours
Course Material	English
Level	Fundamental
Audience	New CATIA or DELMIA V5 designers, NC simulation engineers
Description	This course will teach you how to build NC machine tools in CATIA or DELMIA. This course focuses on the fundamental skills and concepts that enable you to create a solid foundation for your products.
Objectives	Upon Completion of this course you will be able to: - Build fully functional NC machines, with various axis and layout configurations - Create home positions, toolchange positions/ Assign travel limits - Specify speed and acceleration limits, axis names, axis direction - Replace component parts of the finished machine tool - Create a functional machine tool from a template machine
Prerequisites	Students attending this course should have knowledge of Mechanical design and NC machine tools
Available Online	No

	NC Machine Tool Simulation (MSG)
Course Code	DEL-en-MSG-F-V5R20
Available Release	V5R20
Duration	16 hours
Course Material	English
Level	Fundamental
Audience	New CATIA or DELMIA V5 designers, NC simulation engineers
Description	This course will teach you how to define and assign all the relevant parameters, home positions, travel limits, kinematics etc. to have a unique definition of an NC Machine using the NC Machine Tool Builder.
Objectives	Upon completion of this course you will be able to: - Assign machines to Part Operations - Assign turrets (in the case of lathes) to Manufacturing Programs - Mount tools and workpieces - Run simulations using Tool path data, MCD data, Material removal, Material removal using foreign NC code - Set up, detect and analyze simulation faults (collisions, overtravels etc..) - Create a collision report
Prerequisites	Students attending this course should have knowledge of in Mechanical design and NC machine tools
Available Online	No

DELMIA - Digital Manufacturing and Production

DELMIA Manufacturing Hub

	Basic Process Engineer (DPE)
Course Code	DEL-en-DPE-F-V5R20
Available Release	V5R20
Duration	16 hours
Course Material	English
Level	Fundamental
Audience	New E5 mechanical designers.
Description	This course is designed especially for those customers who are implementing Process Engineer in their environment. Process Engineer provides a high-quality solution for early recognition of process risks, re-use of proven processes, traceable changes and decisions, and access to scattered process knowledge. We will apply the software to the development of a project as the methodology for introducing the functionality and capability of this solution.
Objectives	Upon completion of this course you will learn how to: - Organize, evaluate and manage all Product, Process and Resource data in the project in the project tree structure - Establish relationships between the product, process and the resource - Integrate PPR Hub to QUEST and DPM - Importing data from the Hub into QUEST and DPM
Prerequisites	- Mechanical design experience - Experience with the Windows operating system.
Available Online	No

DELMIA - Digital Manufacturing and Production

DELMIA PLM Express

	Automation (AUTO)
Course Code	DEL-en-AUTO-F-V5R20
Available Release	V5R20
Duration	16 hours
Course Material	English
Level	Fundamental
Audience	Systems and Controls Engineers, Mechanical and Industrial Engineers
Description	This course will teach you how to build the virtual environment in DELMIA Automation.
Objectives	Upon completion of this course you will able to: - Build the virtual environment in DELMIA Automation using following steps: - Create basic control logic - Create internal logic for an existing device i.e. smart device - Create a basic control panel - Combine control logic, a smart device and a control panel into a simulation
Prerequisites	Students attending this course should have knowledge of Systems Controls and some basic knowledge of DELMIA V5.
Available Online	No

	PLMX Arc Welding Course (ARB)
Course Code	DEL-en-ARB-F-V5R20
Available Release	V5R20
Duration	16 hours
Course Material	English
Level	Fundamental
Audience	Simulation, Industrial, Mechanical Engineers
Description	This course will teach you about the initial aspects of creating an environment for the Robotic Activity.
Objectives	Upon completion of this course, you will learn how to: - Prepare the working environment for the Robotic Activity - Create arc welding tasks - Optimize robot motion - Work with Arc Macro Programming
Prerequisites	Students attending this course should have experience with V5 Fundamentals and Mechanical Engineering
Available Online	No

	PLMX Human (XHM)
Course Code	DEL-en-XHM-F-V5R20
Available Release	V5R20
Duration	24 hours
Course Material	English
Level	Fundamental
Audience	Simulation, Mechanical and Industrial Engineers
Description	This course teaches you how to use the PLMX Human software to create an accurate simulation of a human entity and its work environment to ensure a natural operation. You will learn to create, manipulate, and analyze how the mannequins interact with a product and its environment.
Objectives	Upon completion of this course you will be able to: - Set options to optimize the software environment - Create a simulation of a human entity and its workplace environment - Create a mannequin to assess Form, Fit, and Function of a product - Analyze the mannequin's Kinematics, Posture, and Activity
Prerequisites	Students attending this course should have knowledge of CATIA V5 fundamentals
Available Online	No

	PLMX Spot Robotics (SRB)
Course Code	DEL-en-SRB-F-V5R20
Available Release	V5R20
Duration	32 hours
Course Material	English
Level	Fundamental
Audience	Simulation, Industrial, Mechanical Engineers
Description	This course will teach you about the initial aspects of creating an environment for the Robotic Activity.
Objectives	In this course you will be able to: - Prepare the work environment for the Robotic Activity - Create tags and robot tasks - Optimize the simulation - Use advanced spot welding features
Prerequisites	Students attending this course should have knowledge of mechanical engineering and microsoft windows
Available Online	No

	PLMX Workcell Builder (RWB)
Course Code	DEL-en-RWB-F-V5R20
Available Release	V5R20
Duration	16 hours
Course Material	English
Level	Fundamental
Audience	Simulation, Industrial, or Mechanical Engineers
Description	This course will teach you about the initial aspects of creating a workcell environment for the Robotic Activity.
Objectives	Upon completion of this course you will be able to: - Prepare the working environment - Build the layout - Create tags
Prerequisites	Students attending this course should have experience with mechanical engineering and the Windows Operating system.
Available Online	No

DELMIA - Digital Manufacturing and Production

DELMIA Robotics

Body in White Fastener Planning End-to-End (BIW)

Course Code	DEL-en-BIW-F-V5R20
Available Release	V5R20
Duration	16 hours
Course Material	English
Level	Fundamental
Audience	Systems and Controls Engineers, Mechanical and Industrial Engineers
Description	This course teaches you to author, validate, and optimize the Body In White manufacturing process plans. You will learn to create concept lines with the targets of cost, volume cycle time, and area. You will also learn how the Resource and standard module planning may be pulled from the Manufacturing Hub to define the concept line, using the company practice templates. This course will also teach you how to detail and evaluate the zones before initializing the setup saving time and money.
Objectives	Upon completion of this course you will be able to use a spare wheel assembly dataset using the Assembly Process Planner tool, the Body-In-White Fastener Process Planning tool, and the V5 Robotics tool.
Prerequisites	Students attending this course should have knowledge of CATIA V5 fundamentals and E5 Process Engineer.
Available Online	No

	V5 Robotics (ROB)
Course Code	DEL-en-ROB-F-V5R20
Available Release	V5R20
Duration	24 hours
Course Material	English
Level	Fundamental
Audience	Simulation, Industrial, Mechanical Engineers
Description	This course will introduce you to the initial aspects of preparing an environment to carry out Robotic activity. The assumption is that the software is going to be used in a stand alone mode, not connected to the Manufacturing Hub and not using other DELMIA software such as Process Engineer. Other courses will address the interface of the Hub and additional software configurations.
Objectives	Upon completion of this course you will be able to: - Prepare the working environment - Build the layout - Create tags and robot tasks - Optimize the simulation
Prerequisites	Students attending this course should have experience with V5 Fundamentals and Mechanical Engineering.
Available Online	No

ENOVIA - Collaborative Innovation

ENOVIA SmarTeam

ENOVIA SmarTeam Administration for Foundation, Editor & Web Editor (STA)

Course Code	SMT-en-STA-F-V5R20
Available Release	V5R20
Duration	24 hours
Course Materials	English , French , German , Japanese
Level	Fundamental
Audience	New ENOVIA SmarTeam Administrators
Description	This course will teach you how to perform administrative tasks in ENOVIA SmarTeam. You will learn how to create and manage user profiles, data model structures, lifecycle rules, and workflows. You will also learn how to add and modify user-defined commands and menus.
Objectives	Upon completion of this course you will be able to: - Perform basic and advanced configuration tasks for SmarTeam Foundation, Editor, and Web Editor - Create and modify data model structures - Create user profiles and assign authorizations - Add and modify user-defined commands and menus - Create and modify workflows - Manage the lifecycle rules
Prerequisites	Students attending this course should have attended the ENOVIA SmarTeam Fundamentals course and the ENOVIA SmarTeam Editor course
Available Online	Yes

ENOVIA SmarTeam - CATIA Integration (TPU)

Course Code	ENOV-en-TPU-F-V5R20
Available Release	V5R20
Duration	8 hours
Course Materials	English , French , German , Japanese
Level	Fundamental
Audience	Engineers, CAD Designers, Suppliers, and Team Leaders involved in product development
Description	This course will teach you how to manage CATIA Parts and Assemblies, and maintain the dependencies and data integrity while performing lifecycle operations using ENOVIA SmarTeam. You will also learn the concepts of Collaborative Design and Relational Design, and how to apply these concepts using ENOVIA SmarTeam.
Objectives	Upon completion of this course you will be able to: - Manage CATIA products using ENOVIA SmarTeam - Manage the various CATIA links and lifecycles associated with CATIA products - Understand how the concepts of Relational Design and Collaborative Design are implemented - Use Properties Mapping - Use Standard CATIA Parts and Catalogs
Prerequisites	Students attending this course should have attended the ENOVIA SmarTeam Fundamentals course and the ENOVIA SmarTeam Editor course
Available Online	Yes

ENOVIA SmarTeam - CATIA Supply Chain Engineering Exchange (SEE) (SEE)

Course Code	ENOV-en-SEE-F-V5R20
Available Release	V5R20
Duration	8 hours
Course Materials	English , French , German , Japanese
Level	Fundamental
Audience	Design Managers and Design Engineers who are working in a collaborative environment
Description	This course will teach you how to use the ENOVIA SmarTeam - CATIA Supply Chain Engineering Exchange product to exchange data. You will learn to perform two types of data exchanges: - ENOVIA SmarTeam file-based exchange - Exchange between two independent ENOVIA SmarTeam installations
Objectives	Upon completion of this course you will be able to: - Build upon your knowledge of ENOVIA SmarTeam - CATIA Integration and use the ENOVIA SmarTeam - CATIA Supply Chain Engineering Exchange product proficiently - Perform file-based data exchanges in ENOVIA SmarTeam - Exchange data between two independent ENOVIA SmarTeam installations
Prerequisites	Students attending this course should have attended the ENOVIA SmarTeam - CATIA Integration course
Available Online	Yes

	ENOVIA SmarTeam - Editor (SED)
Course Code	ENOV-en-SED-F-V5R20
Available Release	V5R20
Duration	16 hours
Course Materials	English , French , German , Japanese
Level	Fundamental
Audience	Reviewers, Engineers, Designers, Sales & Support Staff, and Managers
Description	This course will teach you how to use the ENOVIA SmarTeam - Editor and Workflow products. You will learn how to create data and manage its lifecycle and workflow using ENOVIA SmarTeam. To complement the theory a detailed PLM-based Master Exercise, split into short steps, allows you to practice working with ENOVIA SmarTeam in an industrial context.
Objectives	Upon completion of this course you will be able to: - Build upon your knowledge of ENOVIA SmarTeam Fundamentals and use the ENOVIA SmarTeam - Editor and Workflow products proficiently - Create, search, view, and manage your Product Data - Use the various Workflow modules to create, work with, manage, and customize your Business Processes
Prerequisites	Students attending this course should have attended the ENOVIA SmarTeam Fundamentals course
Available Online	Yes

ENOVIA SmarTeam Fundamentals (SFF)

Course Code	ENOV-en-SFF-F-V5R20
Available Release	V5R20
Duration	4 hours
Course Materials	English , French , German , Japanese
Level	Fundamental
Audience	- Users who are new to PLM, and more specifically to ENOVIA SmarTeam. - Users who want to test their knowledge on ENOVIA SmarTeam fundamentals.
Description	This course will introduce you to the concept of PLM and show how it is implemented by ENOVIA SmarTeam. You will become conversant with the terminology used in ENOVIA SmarTeam and learn the basic concepts of ENOVIA SmarTeam Data Management, Lifecycle Mechanism, and Workflow.
Objectives	Upon completion of this course you will be able to: - Outline the basics of PLM and ENOVIA SmarTeam - Describe how ENOVIA SmarTeam stores and manages different types of Product information - Explain the basic concepts of Lifecycle Management and Workflow
Prerequisites	None
Available Online	Yes

	ENOVIA SmarTeam Installation for Foundation, Editor & Web Editor (STI)
Course Code	ENOV-en-STI-F-V5R20
Available Release	V5R20
Duration	8 hours
Course Material	English
Level	Fundamental
Audience	New ENOVIA SmarTeam Administrators
Description	This course will teach you about the architecture and the installation process of ENOVIA SmarTeam. It will provide you with step-by-step guidance of how to install the Foundation, the Editor, and the Web Editor products of SmarTeam.
Objectives	Upon completion of this course you will be able to: - Describe the SmarTeam Architecture - Install SmarTeam Foundation, Editor, Web Editor products
Prerequisites	None
Available Online	Yes

ENOVIA SmarTeam - Web Editor (WED)

Course Code	ENOV-en-WED-F-V5R20
Available Release	V5R20
Duration	8 hours
Course Materials	English , French , German , Japanese
Level	Fundamental
Audience	Engineers, Designers, Managers, Sales & Support Staff, and Suppliers
Description	This course will teach you how to work with ENOVIA SmarTeam - Web Editor. You will learn how to view projects and documents, manage their lifecycle, and use the various search functions to retrieve data. You will also learn about Workflow functions in brief. The course also contains a scenario-based Master Exercise to allow you to practice what you have learnt.
Objectives	Upon completion of this course you will be able to: - Create and manage Projects and their related data using ENOVIA SmarTeam - Web Editor - Search for different types of product data - Use the Viewer to view CAD data - Manage the lifecycle of your product data - Use the integrated Workflow functionality to work with processes in a collaborative environment
Prerequisites	Students attending this course should have attended the ENOVIA SmarTeam Fundamentals course
Available Online	Yes

ENOVIA - Collaborative Innovation

ENOVIA V5 VPM - User

	ENOVIA V5 VPM for Engineering Collaboration (LEH)
Course Code	ENOV-en-LEH-F-V5R20
Available Release	V5R20
Duration	12 hours
Course Material	English
Level	Fundamental
Audience	CAD Designers, Engineers in charge of product development
Description	This course addresses the functionalities dedicated to manage CATIA data and the Digital Mock-Up (DMU) through interoperability between the ENOVIA V5 VPM Client and CATIA V5 sessions. The same processes will be addressed with VPM Navigator
Objectives	Upon completion of this course, you will be able to: - Work in context - Understand Concurrent Engineering projects - Understand and use Relational Design - Use the interoperability between the ENOVIA V5 VPM Client and CATIA V5 - Use the interoperability between VPM Navigator and CATIA V5
Prerequisites	Students attending this course should have knowledge of ENOVIA V5 VPM Fundamentals & CATIA V5 Fundamentals
Available Online	Yes

ENOVIA V5 VPM for Lifecycle Collaboration (LCN)

Course Code	ENOV-en-LCN-F-V5R20
Available Release	V5R20
Duration	16 hours
Course Material	English
Level	Fundamental
Audience	Non-CAD Users, Engineers, Managers, Suppliers and Team leaders involved in product development
Description	This course is dedicated to engineers and team leaders involved in business and industrial processes that drive engineering development in ENOVIA V5 VPM. You will become conversant with advanced ENOVIA V5 VPM concepts. These include Document Management as well as Variant and Configuration Management. The course also focuses on Engineering Changes Management throughout the product lifecycle. Additionally, the course features exercises for both ENOVIA V5 VPM Client and ENOVIA VPM Lifecycle, so you can immediately practice what you have learnt.
Objectives	Upon completion of this course, you will be able to: - Manage the processes that drive engineering development using ENOVIA V5 VPM Client functionalities and ENOVIA VPM lifecycle - Use Content Management advanced functionalities to manage products and processes documentation - Manage complex product configurations - Drive engineering changes in complex development phases
Prerequisites	Students attending this course should have knowledge of ENOVIA V5 VPM User Fundamentals
Available Online	Yes

ENOVIA V5 VPM for Supply Chain Collaboration (WPE)

Course Code	ENOV-en-WPE-F-V5R20
Available Release	V5R20
Duration	8 hours
Course Material	English
Level	Fundamental
Audience	Design Managers and Design Engineers
Description	In the context of expanding production networks, fast and reliable product data exchange between Original Equipment Manufacturers and their partners is a key element in Product Life Cycle Management. This course focuses on the bidirectional exchange of engineering packages between CATIA and ENOVIA More specifically you will learn how to perform generic reconciliation operations, export data, and define reconciliation rules.
Objectives	Upon completion of this course you will be able to: - Perform generic operations on the reconciliator - Perform queries and Apply reconciliator rules - Reconcile data and perform operations on this data
Prerequisites	Students attending this course should have knowledge of ENOVIA V5 VPM Fundamentals, Engineering Collaboration
Available Online	Yes

	ENOVIA V5 VPM Fundamentals (LUF)
Course Code	ENOV-en-LUF-F-V5R20
Available Release	V5R20
Duration	16 hours
Course Material	English
Level	Fundamental
Audience	Engineers, Managers, CAD Designers, Suppliers and Team Leaders involved in product development
Description	This course introduces you to the concept of Product Lifecycle Management and further explains how business and industrial processes are implemented in the context of ENOVIA V5 VPM.
Objectives	Understand the concept of Product Lifecycle Management - Understand how business and industrial processes are implemented in the context of ENOVIA V5 VPM. - Understand the ENOVIA V5 VPM concepts and functionalities in domains of Product Structure Management and Content Management. - Understand Change Management and Variant Management.
Prerequisites	There is no pre-requisite for this course.
Available Online	Yes

SIMULIA - Realistic Simulation

SIMULIA Analysis

Introduction to Nonlinear Structural Analysis And Thermal Analysis (ANL)

Course Code	SIM-en-ANL-F-V5R20
Available Release	V5R20
Duration	16 hours
Course Material	English
Level	Fundamental
Audience	Mechanical Designers, Analysts
Description	This course introduces two products, Nonlinear Structural Analysis (ANL) and Thermal Analysis (ATH). Together, these products extend the existing CATIA V5 Analysis capabilities. They let designers extend their product simulation capabilities to consider permanent material deformation, large displacements, and advanced contact, as well as response to thermal loading. You will follow the general process to perform a finite element analysis for parts and assemblies and learn how to use the different tools to achieve this.
Objectives	Upon completion of this course you will be able to: - Define different analysis cases and analysis steps - Define loads, boundary conditions, and fields using ANL/ATH workbenches - Define model properties and part properties - Mesh the parts and apply mesh properties - Define contact pairs, general contacts, and connection properties - Manage the analysis files using Job Manager - Perform post processing to visualize the results
Prerequisites	CATIA V5 Fundamentals And CATIA V5 Analysis
Available Online	Yes