DASSAULT SYSTEMES | The 3DEXPERIENCE Company

COURSE CATALOG

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CATIA Analysis V5

CATIA V5 Analysis (V5A)

Course Code	CAT-en-V5A-F-V5R23
Available Releases	V5-6R2013 , V5R19 , V5R20 , V5R21
Duration	8 hours
Course Material	English
Level	Fundamental
Audience	Mechanical Designers and 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	Upon completion of this course you will be able to: - Create a Finite Element Analysis model - Prepare a solid or a 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	Students attending this course should have followed the CATIA V5 Fundamentals course.
Available Online	Yes

ELFINI Structural Analysis (EST)

Course Code	CAT-en-EST-F-V5R21
Available Releases	V5R19 , V5R20 , V5R21
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 be familiar with Generative Part Structural Analysis Fundamentals,

ELFINI Structural Analysis (EST)	
	Generative Assembly Structural Analysis, FEM Surface Meshing
Available Online	Yes

FEM Solid (FMD)

Course Code	CAT-en-FMD-F-V5R21
Available Releases	V5R19 , V5R20 , V5R21
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

FEM Solid (FMD)	
	Expert, Generative Assembly Structural Analysis, FEM Surface Meshing
Available Online	Yes

FEM Surface (FMS)

Course Code	CAT-en-FMS-F-V5R21
Available Releases	V5R19 , V5R20 , V5R21
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.

FEM Surface (FMS)	
Prerequisites	Generative Part Structural Analysis Fundamentals, Generative Assembly Structural Analysis
Available Online	Yes

Generative Assembly Structural Analysis (GAS)

Course Code	CAT-en-GAS-F-V5R23
Available Releases	V5-6R2013 , V5R19 , V5R20 , V5R21
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 taken the CATIA V5 Fundamentals and Generative Part Structural Analysis Fundamentals courses

Generative Assembly Structural Analysis (GAS)

Available Online	Yes

Generative Dynamic Response Analysis (GDY)

Course Code	CAT-en-GDY-F-V5R23
Available Releases	V5-6R2013 , V5R19 , V5R20 , V5R21
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 taken the CATIA V5 Fundamentals and Generative Part Structural Analysis Fundamentals courses
Available Online	Yes

Generative Part Structural Analysis Expert (GPE)

Course Code	CAT-en-GPE-A-V5R23
Available Releases	V5-6R2013 , V5R19 , V5R20 , V5R21
Duration	8 hours
Course Material	English
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 taken the CATIA V5 Fundamentals and Generative Part Structural Analysis Fundamentals courses

Generative Part Structural Analysis Expert (GPE)

Available Online	Yes

Generative Part Structural Analysis Fundamentals (GPF)

Course Code	CAT-en-GPF-F-V5R23
Available Releases	V5-6R2013 , V5R19 , V5R20 , V5R21
Duration	8 hours
Course Material	English
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 be familiar with the fundamentals of CATIA V5
Available Online	Yes

CATIA

CATIA Equipment and Systems Engineering V5

CATIA V5 for Electrical Designers (V5VE)

Course Code	CAT-en-V5VE-F-V5R23
Available Releases	V5-6R2013 , V5R19 , V5R20 , V5R21
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 and the Windows Operating System

CATIA V5 for Electrical Designers (V5VE)

Available Online	Yes

Circuit Board Design (CBD)

Course Code	CAT-en-CBD-F-V5R21
Available Releases	V5R19 , V5R20 , V5R21
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	Understand and use the CATIA Circuit Board Design workbench - Create Printed Circuit Boards in the context of an assembly - Export or import PCBs with an ECAD tool using the IDF interface
Prerequisites	Students attending this course should be familiar with the fundamentals of Mechanical Design with CATIA V5.
Available Online	Yes

Electrical 3D Design and Documentation (EC1)

Course Code	CAT-en-EC1-F-V5R23
Available Releases	V5-6R2013 , V5R19 , V5R20 , V5R21
Duration	16 hours
Course Material	English
Level	Fundamental
Audience	Electrical 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 harnesses suitable for consumer goods - Design wire harnesses with appliances - Route signals and create wires - Flatten and synchronize an electrical or a geometrical harness - Generate the harness documentation - Produce simple drawings
Prerequisites	Students attending this course should be familiar with the fundamentals of Mechanical Design. They should also know Part Design, the Assembly Design and the Drafting workbenches.
Available Online	Yes

Electrical Harness Flattening (EHF)

Course Code	CAT-en-EHF-F-V5R23
Available Releases	V5-6R2013 , V5R19 , V5R20 , V5R21
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 be familiar with 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-V5R23
Available Releases	V5-6R2013 , V5R19 , V5R20 , V5R21
Duration	16 hours
Course Material	English
Level	Fundamental
Audience	Electrical Harness Designers
Description	This course will teach you how to create an Electrical Components Catalog. You will learn how to design harnesses, create bundle segments, and connect them to electrical components. You will also learn how to manage the branch points, protections, and links and perform knowledge checks.
Objectives	Upon completion of this course you will be able to: - Build and manage an Electrical Components Catalog - Design a harness that is integrated within the Digital Mock-Up - Connect bundle segments to electrical components
Prerequisites	Students attending this course should be familiar with the fundamentals of CATIA V5, Part Design, and Catalog Editor.
Available Online	Yes

Electrical Wire Routing (EWR)

Course Code	CAT-en-EWR-F-V5R23
Available Releases	V5-6R2013 , V5R19 , V5R20 , V5R21
Duration	4 hours
Course Material	English
Level	Fundamental
Audience	Electrical Designers using CATIA V5
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 be familiar with CATIA V5 Basics, Electrical Librarian, and Electrical Harness Installation.
Available Online	Yes

Equipment and Systems Environment (ES1)

Course Code	CAT-en-ES1-F-V5R21
Available Releases	V5R19 , V5R20 , V5R21
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	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-V5R21
Available Releases	V5R19 , V5R20 , V5R21
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 know the basics of CATIA V5.
Available Online	Yes

Equipment Arrangement (EQT)

Course Code	CAT-en-EQT-F-V5R21
Available Releases	V5R19 , V5R20 , V5R21
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	Place equipments and manage their positions in space - Generate reports and drawings.
Prerequisites	Students attending this course should be familiar with the basics of CATIA V5.
Available Online	Yes

Equipment Arrangement Setup (EQS)

Course Code	CAT-en-EQS-F-V5R21
Available Releases	V5R19 , V5R20 , V5R21
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	Create a feature dictionary - Manage design rules - Create a 2D Diagram Catalog - Create a 3D Library Catalog
Prerequisites	Students attending this course should be familiar with Equipment and Systems Setup and Administration, Equipment Arrangement.
Available Online	Yes

Experience CATELECTRE (CEL)

Course Code	CAT-en-CEL-F-V5R20
Available Release	V5R20
Duration	2 hours
Course Material	English
Level	Fundamental
Audience	- Electrical Engineers - Electrical Architects
Description	This course will teach you how to work with CATELECTRE in CATIA for designing an electrical harness. You will learn how to place the electrical components and design the electrical geometry. You will also learn how to route the wires using CATELECTRE.
Objectives	Upon completion of this course you will be able to: - Configure and customize CATELECTRE settings - Format a .csv Electrical Definition - Place the electrical components through CATELECTRE - Design the electrical geometry - Route the electrical wires through CATELECTRE - Compute and export physical data
Prerequisites	Students attending this course should be familiar with CATIA V5 electrical terminologies and basic design principles.
Available Online	Yes

Generic Routing (ES2)

Course Code	CAT-en-ES2-F-V5R23
Available Releases	V5-6R2013 , V5R19 , V5R20 , V5R21
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 equipment and system layout.
Objectives	Upon completion of this course you will be able to: - Organize the data - Organize the route - Modify the runs - Manipulate objects
Prerequisites	Students attending this course should know the basics of Mechanical Design in CATIA V5.
Available Online	Yes

HVAC Design (HVA)

Course Code	CAT-en-HVA-F-V5R21
Available Releases	V5R19 , V5R20 , V5R21
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	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 be familiar with EQT and ES2.
Available Online	Yes

HVAC Diagrams (HVD)

Course Code	CAT-en-HVD-F-V5R21
Available Releases	V5R19 , V5R20 , V5R21
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	Create and modify Diagrams - Create and manage Zone - Generate Reports - Import Design Checks and detect Design Failures
Prerequisites	Students attending this course should be familiar with CATIA V5 Fundamentals.
Available Online	Yes

HVAC Setup and Catalogs (HVS)

Course Code	CAT-en-HVS-F-V5R21
Available Releases	V5R19 , V5R20 , V5R21
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	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-V5R23
Available Releases	V5-6R2013 , V5R19 , V5R20 , V5R21
Duration	4 hours
Course Material	English
Level	Fundamental
Audience	Piping Designers and Instrumentation Engineers
Description	This course will teach you how to create and manage the various elements of a piping system. It will also teach you how to check and analyze the piping system and generate reports.
Objectives	Upon completion of this course you will be able to: - Create a piping schematic diagram - Generate reports for review - Implement and use design checks - Analyze a piping network
Prerequisites	Students attending this course should be familiar with the fundamentals of CATIA V5.
Available Online	Yes

Piping Design (PIP)

Course Code	CAT-en-PIP-F-V5R23
Available Releases	V5-6R2013 , V5R19 , V5R20 , V5R21
Duration	8 hours
Course Material	English
Level	Fundamental
Audience	Piping Design Engineers
Description	This course will teach you how to create a piping design in CATIA V5. You will learn how to define the routings, 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, orientate and locate the piping parts - Modify the piping design - Define and generate reports and drawings
Prerequisites	Students attending this course should be familiar with Generic Routing and Equipment Arrangement.
Available Online	Yes

Piping Setup (PIS)

Course Code	CAT-en-PIS-F-V5R23
Available Releases	V5-6R2013 , V5R19 , V5R20 , V5R21
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 be familiar with Equipment and Systems Setup and Administration, Piping & Instrumentation Diagrams Fundamentals, and Piping Design.
Available Online	Yes

Structure Detail Design (SDD)

Course Code	CAT-en-SDD-F-V5R21
Available Releases	V5R19 , V5R20 , V5R21
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	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-V5R21
Available Releases	V5R19 , V5R20 , V5R21
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 Coordinate system of the ship. You will also learn how to create Parts, Small Assembly and create reports.
Objectives	Manage the Feature Dictionary - Identify the Coordinate system of the ship - Identify the Molded Conventions - Define the Structure Catalog - Create Reports
Prerequisites	Students attending this course should be familiar with CATIA V5 Fundamentals.
Available Online	Yes

Structure Functional Design (SFD)

Course Code	CAT-en-SFD-F-V5R21
Available Releases	V5R19 , V5R20 , V5R21
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	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 be familiar with CATIA V5 Fundamentals
Available Online	Yes

Tubing Catalogs (2D Diagrams and 3D Design) (TUS)	
Course Code	CAT-en-TUS-F-V5R23
Available Releases	V5-6R2013 , V5R19 , V5R20 , V5R21
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 requirements and thus help in creating intelligent Tubing Layouts quickly and efficiently. You will also learn how to administrate the various catalogs of the Tubing discipline.
Objectives	Upon completion of this course you will be able to: - Manage the various object classes of the Feature Dictionary - Create 2D Diagram catalogs and 3D Design catalogs - Create Standards catalogs and Design Rules catalogs - Create reports for review - Customize the settings for drawings
Prerequisites	Students attending this course should be familiar with the fundamentals of CATIA V5, Tubing Design, and Tubing Diagrams. They should also be aware of the setup and administration of Equipment and Systems.
Available Online	Yes

Tubing Design (TUB)

Course Code	CAT-en-TUB-F-V5R23
Available Releases	V5-6R2013 , V5R19 , V5R20 , V5R21
Duration	8 hours
Course Material	English
Level	Fundamental
Audience	Tubing Designers
Description	This course will teach you how to create a tubing design in CATIA V5. You will learn how to define the tubing runs, place and modify the tubing parts, and generate the reports.
Objectives	Upon completion of this course you will be able to: - Create tubing runs - Place parts on the tubing runs - Manage tubing design - Generate tubing documentation
Prerequisites	Students attending this course should be familiar with the basics of CATIA V5, Generic Routing, and Equipment Arrangement.
Available Online	Yes

Tubing Diagrams (TUD)

Course Code	CAT-en-TUD-F-V5R23
Available Releases	V5-6R2013 , V5R19 , V5R20 , V5R21
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: - Create a schematic diagram. - Generate reports - Implement and use design checks - Analyze a network
Prerequisites	Students attending this course should be familiar with CATIA V5 fundamentals.
Available Online	Yes

CATIA

CATIA Infrastructure V5

CATIA V5 Automation (VBA)

Course Code	CAT-en-VBA-F-V5R23
Available Releases	V5-6R2013 , V5R19 , V5R20
Duration	24 hours
Course Material	English
Level	Fundamental
Audience	CATIA 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 use the Visual Basic language and other automation tools to create automation scripts, programs, and Macros in CATIA V5.
Prerequisites	Students attending this course should have knowledge of CATIA V5 and Visual Basic.
Available Online	Yes

V5 Administration (ADM)

Course Code	CAT-en-ADM-F-V5R23
Available Releases	V5-6R2013 , V5R19 , V5R20 , V5R21
Duration	24 Hours
Course Material	English
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 be familiar with system administration.
Available Online	Yes

CATIA

CATIA Machining V5

Advanced Part Machining (AMG)

Course Code	CAT-en-AMG-F-V5R23
Available Releases	V5-6R2013 , V5R19 , V5R20 , V5R21
Duration	12 hours
Course Material	English
Level	Fundamental
Audience	Experienced 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: - Define a Multi-Axis Flank Contouring operation - Define a Multi-Axis Helix Machining operation - Define a Cavities Roughing operation
Prerequisites	Students attending this course must be familiar with the NCI, PMG, SMG, and MMG workbenches.
Available Online	Yes

Lathe Machining (LMG)

Course Code	CAT-en-LMG-F-V5R23
Available Releases	V5-6R2013 , V5R19 , V5R20 , V5R21
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: - Define Lathe Machining operations - Manage Lathe Tools and Tool Assemblies - Use different methodologies for Lathe Machining
Prerequisites	Students attending this course should have attended the CATIA V5 Fundamentals and the Numerical Control Infrastructure courses.
Available Online	Yes

Multi-Axis Surface Machining (MMG)

Course Code	CAT-en-MMG-F-V5R23
Available Releases	V5-6R2013 , V5R19 , V5R20 , V5R21
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 various 5-Axis machining operations
Prerequisites	Students attending this course should be familiar with CATIA V5 Surface Machining (SMG) Fundamentals
Available Online	Yes

Multi-Pockets Machining (MPG)

Course Code	CAT-en-MPG-F-V5R21
Available Releases	V5R19 , V5R20 , V5R21
Duration	4 hours
Course Material	English
Level	Fundamental
Audience	NC programmer, Machinist
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 Offset Management in detail.
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 should be familiar with CATIA V5 Fundamentals and Numerical Control Infrastructure
Available Online	Yes

Multi- Slide Lathe Machining (MLG)

Course Code	CAT-en-MLG-F-V5R21
Available Releases	V5R19 , V5R20 , V5R21
Duration	8 hours
Course Material	English
Level	Fundamental
Audience	NC Programmers who need to optimize NC Programs 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 NC programs for multi-turret and 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

Multi- Slide Lathe Machining (MLG)

Prerequisites	Students attending this course should be familiar with CATIA V5 Fundamentals, NC Infrastructure, and Lathe Machining
Available Online	Yes

Numerical Control Infrastructure (NCI)

Course Code	CAT-en-NCI-F-V5R23
Available Releases	V5-6R2013 , V5R19 , V5R20 , V5R21
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 be familiar with CATIA V5 fundamentals
Available Online	Yes

Prismatic Machining (PMG)

Course Code	CAT-en-PMG-F-V5R23
Available Releases	V5-6R2013 , V5R19 , V5R20 , V5R21
Duration	16 hours
Course Material	English
Level	Fundamental
Audience	NC Programmers
Description	This course will teach you how to define and manage NC programs to machine 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 to create Prismatic Machining and Rework Areas.
Objectives	Upon completion of this course you will be able to: - Define Prismatic Machining operations (2.5 Axis Milling) - Create a Prismatic Machining Area and a Rework Area - Define and modify NC Macros
Prerequisites	Students attending this course should have attended the CATIA V5 Fundamentals and the Numerical Control Infrastructure courses.
Available Online	Yes

Prismatic Machining Preparation Assistant (MPA)

Course Code	CAT-en-MPA-F-V5R23
Available Releases	V5-6R2013 , V5R19 , V5R20 , V5R21
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 - Create prismatic machinable features - Form a link between Design and Manufacturing
Prerequisites	Students attending this course should be familiar with CATIA V5 Fundamentals, Numerical Control Infrastructure, Prismatic Machining
Available Online	Yes

STL Rapid Prototyping (STL)

Course Code	CAT-en-STL-F-V5R21
Available Releases	V5R19 , V5R20 , V5R21
Duration	2 hours
Course Material	English
Level	Fundamental
Audience	Surface designers
Description	This course teaches you how to create a mesh from a surface or a solid. You will also learn how to improve the mesh and export it as an STL file
Objectives	Upon completion of this course you will be able 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 be familiar with CATIA Digitized Shape Editor
Available Online	Yes

Surface Machining (SMG)

Course Code	CAT-en-SMG-F-V5R23
Available Releases	V5-6R2013 , V5R19 , V5R20 , V5R21
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: - 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 be familiar with the CATIA V5 Fundamentals course and the Numerical Control Infrastructure workbench
Available Online	Yes

CATIA

CATIA Mechanical Design V5

2D Layout for 3D Design (LO1)

Course Code	CAT-en-LO1-F-V5R23
Available Releases	V5-6R2013 , V5R19 , V5R20 , V5R21
Duration	8 hours
Course Material	English
Level	Fundamental
Audience	Mechanical Designers
Description	This course will teach you how to create 2D layout views in a 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 be familiar with CATIA V5 fundamentals
Available Online	Yes

3D Functional Tolerancing & Annotation (FTA)

Course Code	CAT-en-FTA-F-V5R23
Available Releases	V5-6R2013 , V5R19 , V5R20 , V5R21
Duration	16 hours
Course Material	English
Level	Fundamental
Audience	Mechanical Designers
Description	This course will teach you how to annotate a 3D part. You will learn how to create annotation planes and how to add and manage 3D annotations on these planes. You will also learn how to create 3D views and use them to create 2D drawing views.
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 be familiar with basic solid and surface creation functions and Knowledgeware.
Available Online	Yes

Advanced Drafting and Customization (DRA)

Course Code	CAT-en-DRA-A-V5R21
Available Releases	V5R19 , V5R20 , V5R21
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 be familiar with CATIA V5 fundamentals and VB scripting
Available Online	Yes

Aerospace Sheetmetal Design (ASL)

Course Code	CAT-en-ASL-F-V5R21
Available Releases	V5R19 , V5R20 , V5R21
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 by defining its internal features in this workbench. You will also learn how to create a drawing of a flattened part.
Objectives	Upon completion of this course you will be able to: - Define the parameters for an aerospace sheet metal part. - 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 be familiar with Part Design, Assembly Design and Wireframe & Surface Design.
Available Online	Yes

CATIA Composites Design V5R20 Update (UCPD20)	
Course Code	CAT-en-UCPD20-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-V5R23
Available Releases	V5-6R2013 , V5R19 , V5R20 , V5R21
Duration	16 hours
Course Material	English
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 in accordance with 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-V5R23
Available Releases	V5-6R2013 , V5R19 , V5R20 , V5R21
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 of a 3D model by creating projection and section views and by 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 be familiar with CATIA Fundamentals
Available Online	Yes

CATIA Generative Drafting Fundamentals (ISO) (GDRI)

Course Code	CAT-en-GDRI-F-V5R23
Available Releases	V5-6R2013 , V5R19 , V5R20 , V5R21
Duration	8 hours
Course Material	English
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 of a 3D model by creating projection and section views and by adding basic dimensions.
Objectives	Upon completion of this course you will be able to: - Create simple projection 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 be familiar with CATIA Fundamentals
Available Online	Yes

CATIA Generative Sheetmetal Design (SMD)

Course Code	CAT-en-SMD-F-V5R23
Available Releases	V5-6R2013 , V5R19 , V5R20 , V5R21
Duration	8 hours
Course Material	English
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 be familiar with CATIA V5 Fundamentals
Available Online	Yes

CATIA Generative Sheetmetal Design V5R19 Updates (SMD)

Course Code	CAT-en-SMD-U-V5R19
Available Release	V5R19
Duration	4 hours
Course Materials	English , French , German , Japanese
Level	Update
Audience	Mechanical Designers, Sheetmetal designers
Description	This course will teach you learn the enhancements in the Extrusion, Recognize, and Paste Specia functionalities. You will also learn about the new functionality of integrating the unfolded curve in the drawing.
Objectives	Upon completion of this course you will be able to use the enhanced functionalities in the Generative Sheetmetal Design Workbench for the V5R19 release.
Prerequisites	Students attending this course must have knowledge of CATIA Generative Sheetmetal Design V5R18.
Available Online	Yes

CATIA Generative Sheetmetal Design V5R20 Updates (USMD20)

Course Code	CAT-en-USMD20-U-V5R20
Available Release	V5R20
Duration	4 hours
Course Materials	English , French , German , Japanese
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 V5-6R2012 Update (UMD22)

Course Code	CAT-en-UMD22-U-V5R22
Available Release	V5-6R2012
Duration	4 hours
Course Material	English
Level	Update
Audience	Mechanical Designers
Description	This course will teach you how to use the enhanced functionalities in the CATIA V5-6R2012 Mechanical Design workbenches. You will see for example, the way in which elements can now be projected and offset while in the Sketcher workbench and how rectangular patterns can now be created in the Part Design workbench. You will also see how to visualize part sections in 3D, use the improved wireframe functions in the Generative Shape Design workbench and simplify the creation of section profiles in the Drafting workbench.
Objectives	Upon completion of this course you will be able to take advantage of the new and enhanced tools in CATIA V5-6R2012 for the following Mechanical Design workbenches: - Sketcher - Part Design - Assembly Design - Generative Shape Design
Prerequisites	Students attending this course should be familiar with the V5R19 CATIA Mechanical Design workbenches.
Available Online	Yes

CATIA Mechanical Design V5-6R2013 Update (UMD23)

Course Code	CAT-en-UMD23-F-V5R23
Available Release	V5-6R2013
Duration	4 hours
Course Material	English
Level	Fundamental
Audience	Mechanical Designers
Description	This course will teach you how to use the enhanced functionalities in the CATIA V5-6R2013 Mechanical Design workbenches. You will see for example, the way in which equivalent dimensions are now managed while in the Sketcher workbench and how circular patterns can now be created in the Part Design workbench. You will also see how to edit repetitive elements in the Generative Shape Design workbench to and modify tolerance display factors in the Drafting workbench.
Objectives	Upon completion of this course you will be able to take advantage of the new and enhanced tools in CATIA V5-6R2013 for the following Mechanical Design workbenches: - Sketcher - Part Design - Assembly Design - Generative Shape Design
Prerequisites	Student attending this course should be familiar with the V5-6R2012 CATIA Mechanical Design workbenches.
Available Online	Yes

CATIA Mechanical Design V5R19 Update (UMD19)	
Course Code	CAT-en-UMD19-U-V5R19
Available Release	V5R19
Duration	8 hours
Course Materials	English , French , German , Japanese
Level	Update
Audience	Mechanical Designers
Description	This course will teach you how to use the enhanced functionalities in V5R19 CATIA Mechanical Design workbenches.
Objectives	Upon completion of this course you will be able to: - - Upgrade and explode the sketch features such as edge fillet and tapered hole - - Modify the CATPart geometry in assembly context to create a new CATPart using new Associatively command - - Use the points and plane repetition command - - Customize a BOM using new command Advanced Bill of Material - -Demonstrate Broken and normal(non-broken) constraints
Prerequisites	- Students attending this course should have knowledge of - CATIA Mechanical Design V5R18
Available Online	Yes

CATIA Mechanical Design V5R20 Update (UMD20)	
Course Code	CAT-en-UMD20-U-V5R20
Available Release	V5R20
Duration	4 hours
Course Materials	English , French , German , Japanese
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-V5R23
Available Releases	V5-6R2013 , V5R19 , V5R20 , V5R21
Duration	8 hours
Course Material	English
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 how to create and modify solid features in order to prepare 3D parts 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 in accordance with the manufacturing requirements
Prerequisites	Students attending this course should be familiar with CATIA Fundamentals and CATIA Sketcher
Available Online	Yes

CATIA Part Design Added Exercises (PDG)

Course Code	CAT-en-PDG-X-V5R23
Available Releases	V5-6R2013 , V5R19 , V5R20 , V5R21
Duration	12 hours
Course Material	English
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 this course you will have: - Refreshed your Part Design skills - Put into practice recommended design methodology
Prerequisites	Students attending this course should be familiar with CATIA Part Design and CATIA Knowledgeware
Available Online	Yes

CATIA Part Design Expert (PDG)

Course Code	CAT-en-PDG-A-V5R23
Available Releases	V5-6R2013 , V5R19 , V5R20 , V5R21
Duration	12 hours
Course Material	English
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 be familiar with CATIA V5 Fundamentals, Getting started with CATIA V5, CATIA Sketcher, and Part Design Fundamentals
Available Online	Yes

CATIA Product Design (ASM)

Course Code	CAT-en-ASM-F-V5R23
Available Releases	V5-6R2013 , V5R19 , V5R20 , V5R21
Duration	8 hours
Course Material	English
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 be familiar with CATIA Part Design
Available Online	Yes

CATIA Product Design Added Exercises (ASM)

Course Code	CAT-en-ASM-X-V5R23
Available Releases	V5-6R2013 , V5R19 , V5R20 , V5R21
Duration	8 hours
Course Material	English
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 this course you will be able to: - 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-V5R23
Available Releases	V5-6R2013 , V5R19 , V5R20 , V5R21
Duration	16 hours
Course Material	English
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 be familiar with CATIA Product Design and CATIA Part Design

CATIA Product Design Expert (ASM)

Available Online	Yes

CATIA Sketcher (SKE)

Course Code	CAT-en-SKE-F-V5R23
Available Releases	V5-6R2013 , V5R19 , V5R20 , V5R21
Duration	8 hours
Course Material	English
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 be familiar with CATIA Fundamentals
Available Online	Yes

CATIA Surface Design (GS1)

Course Code	CAT-en-GS1-F-V5R23
Available Releases	V5-6R2013 , V5R19 , V5R20 , V5R21
Duration	8 hours
Course Material	English
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 these exercises 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 be familiar with CATIA V5 Fundamentals
Available Online	Yes

CATIA Surface Design Added Exercises (GS1)

Course Code	CAT-en-GS1-X-V5R23
Available Releases	V5-6R2013 , V5R19 , V5R20 , V5R21
Duration	7 hours
Course Material	English
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 be familiar with CATIA V5 Surface Design
Available Online	Yes

CATIA Tools For Proficient Users (PRO)

Course Code	CAT-en-PRO-F-V5R23
Available Releases	V5-6R2013 , V5R19 , V5R20 , V5R21
Duration	8 hours
Course Material	English
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 be familiar with CATIA Fundamentals and CATIA Part Design
Available Online	Yes

CATIA V5 Foundations for Aerospace Assembly Designers (V5AeA)

Course Code	CAT-en-V5AeA-F-V5R23
Available Releases	V5-6R2013 , V5R19 , V5R20 , V5R21
Duration	24 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-V5R23
Available Releases	V5-6R2013 , V5R19 , V5R20 , V5R21
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 then the correct techniques for the creation and annotation of complex 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 the Windows Operating System
Available Online	Yes

CATIA V5 Foundations for Aerospace Part Reviewers (V5AeR)

Course Code	CAT-en-V5AeR-F-V5R23
Available Releases	V5-6R2013 , V5R19 , V5R20 , V5R21
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: - 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 be familiar with Mechanical Design and the Windows Operating System.
Available Online	Yes

CATIA V5 Foundations for Body Designers (V5VB)

Course Code	CAT-en-V5VB-F-V5R23
Available Releases	V5-6R2013 , V5R19 , V5R20 , V5R21
Duration	56 hours
Course Material	English
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 know the fundamentals of Mechanical and Surface Design
Available Online	Yes

CATIA V5 Foundations for Chassis Designers (V5VC)

Course Code	CAT-en-V5VC-F-V5R23
Available Releases	V5-6R2013 , V5R19 , V5R20 , V5R21
Duration	56 hours
Course Material	English
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 know the basics of Mechanical and Surface Design
Available Online	Yes

CATIA V5 Foundations for Powertrain Designers (V5VP)

Course Code	CAT-en-V5VP-F-V5R23
Available Releases	V5-6R2013 , V5R19 , V5R20 , V5R21
Duration	56 hours
Course Material	English
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 know the fundamentals of Mechanical Design
Available Online	Yes

CATIA V5 Fundamentals (V5F)

Course Code	CAT-en-V5F-F-V5R23
Available Releases	V5-6R2013 , V5R19 , V5R20 , V5R21
Duration	40 hours
Course Materials	Chinese , English
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 be familiar with Mechanical Design and the Windows Operating System.
Available Online	Yes

CATIA V5 Mechanical Design Expert (V5E)

Course Code	CAT-en-V5E-A-V5R23
Available Releases	V5-6R2013 , V5R19 , V5R20 , V5R21
Duration	40 hours
Course Materials	Chinese , English
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 be familiar with the basics of CATIA V5 Mechanical Design
Available Online	Yes

CATIA V5-V6 Design Synchronization Essentials (DCE5)

Course Code	CAT-en-DCE5-F-V5R23
Available Release	V5-6R2013
Duration	4 hours
Course Material	English
Level	Fundamental
Audience	CATIA V6 designers who need to design in collaboration with CATIA V5 designers.
Description	This is a process-based course which will teach you how synchronised versions of CATIA V6 and CATIA V5 can be used to exchange data during product design. You will see how V6 models can be interactively converted to V5 solids and how V6 features can be preserved in V5, thus allowing a V5 user to modify them. You will see how a modified V5 model can then be imported into V6 and used to replace the original V6 model. Finally, you will see how the batch transfer mode can be used to perform mass data transfer and how it can improve performance.
Objectives	Upon completion of this course you will be able to: - Convert a CATIA V6 product structure to CATIA V5 interactively. - Convert a CATIA V6 part to CATIA V5 and modify it in V5. - Import the modified V5 part into V6 and compare it with the original part. - Replace a V6 part with a modified V5 part. - Transfer products and parts between V6 and V5 using batch mode.

CATIA V5-V6 Design Synchronization Essentials (DCE5)

Prerequisites	Students should be familiar with CATIA V5 Fundamentals and CATIA V6 Mechanical Design Fundamentals.
Available Online	Yes

Composites Grid Approach (CPG)

Course Code	CAT-en-CPG-F-V5R23
Available Releases	V5-6R2013 , V5R20 , V5R21
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 Design - Generate plies using the Grid approach - Modify 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
Prerequisites	Students attending this course should be familiar with 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-V5R23
Available Releases	V5-6R2013 , V5R19 , V5R20 , V5R21
Duration	24 hours
Course Material	English
Level	Fundamental
Audience	Composites for Engineering 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: - Define the Composites parameters - Create a preliminary design for composites parts using the Zone approach and the Solid approach - Generate Composites parts from Preliminary design to Engineering detail design
Prerequisites	Students attending this course should be familiar with Part Design, Assembly Design, Wireframe and Surface Design, and Drafting.
Available Online	Yes

Composites Part Manufacturing (CPM)

Course Code	CAT-en-CPM-F-V5R23
Available Releases	V5-6R2013 , V5R19 , V5R20 , V5R21
Duration	16 hours
Course Material	English
Level	Fundamental
Audience	Composites for 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: - Understand the significance of the Manufacturing Data creation process in Composites design - Generate the Manufacturing data structure from the Engineering data structure - Modify the Manufacturing data structure - Synchronize the link between the Manufacturing and the Engineering part
Prerequisites	Students attending this course should be familiar with Part Design, Assembly Design, Wireframe and Surface Design, and Drafting.
Available Online	Yes

Core and Cavity Design (CCV)

Course Code	CAT-en-CCV-F-V5R21
Available Releases	V5R19 , V5R20 , V5R21
Duration	12 hours
Course Material	English
Level	Fundamental
Audience	Tooling designers with no experience on Core and Cavity Design
Description	This course will teach you how to create the Core and Cavity of a molded part model. You will learn the basic methods used to create the core and cavity areas of a part, including sliders and loose cores that are required to design a Plastic Injection Mold.
Objectives	Upon completion of this course you will be able to: - Split a shape into mold areas - Create the corresponding parting line and parting surface - Create the core surface, cavity surface and slider/ lifter surfaces
Prerequisites	Students attending this course should be familiar with CATIA V5 fundamentals
Available Online	Yes

Functional Molded Parts (FMP)

Course Code	CAT-en-FMP-F-V5R21
Available Releases	V5R19 , V5R20 , V5R21
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 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 the cores and cavity from the final part.
Objectives	Upon Completion of this course you will be able to: - Create the main shapes of a molded part by defining the material added or removed from the part mold. - Add functional features such as ribs or cutouts to the part. - Finalize the molded part using 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

Getting Started with CATIA V5 (COM)

Course Code	CAT-en-COM-F-V5R23
Available Releases	V5-6R2013 , V5R19 , V5R20 , V5R21
Duration	4 hours
Course Material	English
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

Healing Assistant (HA1)

Course Code	CAT-en-HA1-F-V5R21
Available Releases	V5R19 , V5R20 , V5R21
Duration	8 hours
Course Material	English
Level	Fundamental
Audience	Tooling Designers, Mechanical Designers, Surface Designers.
Description	This course introduces you to CATIA Healing Assistant's user interface and its basic tools. You will learn how to analyze and repair the imported data (IGES 3D or CATIA V4 files). You will also learn how to compare two versions of a Part, and 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
Prerequisites	Students attending this course should be familiar with the Wireframe and Surfaces.
Available Online	Yes

Mold Tooling Design (MTD)

Course Code	CAT-en-MTD-F-V5R21
Available Releases	V5R19 , V5R20 , V5R21
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 be familiar with CATIA V5 fundamentals and Tooling Design fundamentals
Available Online	Yes

Part Design Features Recognition (FR1)

Course Code	CAT-en-FR1-F-V5R21
Available Releases	V5R19 , V5R20 , V5R21
Duration	4 hours
Course Material	English
Level	Fundamental
Audience	Mechanical Designers
Description	This course will teach you to use the Feature Recognition tools of the Part Design workbench. You will learn how 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 a feature-based model from a CATIA V5 isolated BRep solid model - Build a feature-based model from a solid imported from another CAD system
Prerequisites	Students attending this course should be familiar with CATIA V5 Fundamentals and CATIA Part Design.
Available Online	Yes

Tooling Design (TG1)

Course Code	CAT-en-TG1-F-V5R21
Available Releases	V5R19 , V5R20 , V5R21
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 how 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 the Mold Tool Design workbench - Instantiate the components in a die or mold structure
Prerequisites	Students attending this course should be familiar with CATIA V5 fundamentals
Available Online	Yes

Weld Design (WD1)

Course Code	CAT-en-WD1-F-V5R21
Available Releases	V5R19 , V5R20 , V5R21
Duration	8 hours
Course Material	English
Level	Fundamental
Audience	Mechanical and Structural Designers
Description	This course will teach you how to join parts using appropriate Weld Features. You will also learn how to generate fully associative Weld Drawings and Weld Reports.
Objectives	Upon completion of this course you will be able to: - Weld parts using appropriate features - Extract 2D views from 3D Welds - Generate Weld Reports
Prerequisites	Students attending this course should be familiar with CATIA V5 Fundamentals.
Available Online	Yes

CATIA

CATIA PLM Express V5

CATIA PLM Express Fundamentals (CTP)

Course Code	CAT-en-CTP-F-V5R23
Available Releases	V5-6R2013 , V5R19 , V5R20 , V5R21
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 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 be familiar with Mechanical Design and the Windows operating system
Available Online	Yes

CATIA PLM Express Fundamentals - Basic Surface (CTPB)

Course Code	CRB-en-CTPB-F-V5R21
Available Releases	V5R19 , V5R20 , V5R21
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	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 be familiar with Mechanical Design and the Windows operating system
Available Online	Yes

CATIA PLM Express Fundamentals - Surfaces (CTPS)	
Course Code	CRB-en-CTPS-F-V5R21
Available Releases	V5R19 , V5R20 , V5R21
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 - 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

CATIA

CATIA Product Synthesis V5

CATIA Knowledge Fundamentals (KWF)

Course Code	CAT-en-KWF-F-V5R23
Available Releases	V5-6R2013 , V5R19 , V5R20 , V5R21
Duration	8 hours
Course Material	English
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	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 be familiar with CATIA V5 Part Design and CATIA V5 Assembly Design
Available Online	Yes

Human Modeling (HMN)

Course Code	CAT-en-HMN-F-V5R21
Available Releases	V5R19 , V5R20 , V5R21
Duration	16 hours
Course Material	English
Level	Fundamental
Audience	Designers, Engineers, Human Factor's Specialists, Health Specialists
Description	This course will teach you how to use the Human Model technology to leverage your ergonomics analysis. You will also learn how to position and manipulate the mannequin within a V5 Scene and evaluate the comfort, the reach, clearance, and the vision of your target population.
Objectives	Use Human Model technology to leverage your ergonomics analysis. - Position and manipulate the mannequin within a V5 Scene. - Evaluate the comfort, the reach, clearance, and the vision of your target population.
Prerequisites	Students attending this course should know how to work with V5 Digital Mock-Ups.
Available Online	Yes

Knowledge Advisor (KWA)

Course Code	CAT-en-KWA-F-V5R23
Available Releases	V5-6R2013 , V5R19 , V5R20 , V5R21
Duration	8 hours
Course Material	English
Level	Fundamental
Audience	CAD Engineers
Description	This course will teach you how to embed knowledge in your designs using Knowledge Advisor tools. You will also learn how to leverage the knowledge to reduce errors and automate the design modifications.
Objectives	Upon completion of this course you will be able to: - Create and use User Parameters and Formulae - Create Rules, Checks and Reactions to control the design - Create and use Design Tables to automate the design modifications - Use miscellaneous Knowledge Advisor tools
Prerequisites	Students attending this course should be familiar with the basics of CATIA V5.
Available Online	Yes

Knowledge Expert (KWE)

Course Code	CAT-en-KWE-E-V5R23
Available Releases	V5-6R2013 , V5R19 , V5R20 , V5R21
Duration	4 hours
Course Material	English
Level	Expert
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: - Embed complex design knowledge in a parametric part using Knowledgeware Expert rules checks and reactions. - Automate design modifications using specific Knoweldge Expert tools
Prerequisites	Students attending this course should be familiar with the basics of CATIA V5 and knowledgeware.
Available Online	Yes

Product Engineering Optimizer (PEO)

Course Code	CAT-en-PEO-F-V5R21
Available Releases	V5R19 , V5R20 , V5R21
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	Formulate an optimization problem - Select the appropriate algorithms to solve an Optimization Problem - Analyze the results of optimization
Prerequisites	Students attending this course should be familiar with the basics of CATIA V5.
Available Online	Yes

Product Knowledge Template (PKT)

Course Code	CAT-en-PKT-F-V5R23
Available Releases	V5-6R2013 , V5R19 , V5R20 , V5R21
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 be familiar with the basics of CATIA V5 and knowledgeware.
Available Online	Yes

CATIA

CATIA Shape Design and Styling V5

Automotive Body in White Fastening (ABF)

Course Code	CAT-en-ABF-F-V5R21
Available Releases	V5R19 , V5R20 , V5R21
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	Students attending this course should have an expert knowledge of CATIA Surface Design. They should also be familiar with Product Design and Drafting in CATIA V5.
Available Online	Yes

CATIA Digitized Shape Editor (DSE)

Course Code	CAT-en-DSE-F-V5R23
Available Releases	V5-6R2013 , V5R19 , V5R20 , V5R21
Duration	8 hours
Course Material	English
Level	Fundamental
Audience	Shape Designers
Description	This course will teach you how to use the CATIA Digitized Shape Editor to import and use digitized data (scans or clouds of points). You will also learn how to create meshes and extract characteristic curves from the data. The course mainly focuses on Reverse Engineering techniques.
Objectives	Upon completion of this course you will be able to: - Import and process a digitized points cloud data - Create a tessellated mesh on the points cloud data - Extract characteristic curves from the data - Export the result to other file formats
Prerequisites	Students attending this course should be familiar with the fundamentals of CATIA V5.
Available Online	Yes

CATIA For Design Foundations (CDF)

Course Code	CAT-en-CDF-F-V5R21
Available Releases	V5R19 , V5R20 , V5R21
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: - 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	Yes

CATIA Generative Shape Design V5-6R2012 Update (UHD22)

Course Code	CAT-en-UHD22-U-V5R22
Available Release	V5-6R2012
Duration	4 hours
Course Material	English
Level	Update
Audience	Surface Designers
Description	This course will teach you how to use the enhanced functionalities in the CATIA V5-6R2012 Generative Shape Design workbenches. You will see for example, the way in which contours and rolling offsets are created from curves and how the surfaces are sewed, mirrored and chamfered. You will also see how to simplify the surfaces, create multi-section surfaces, and create the farthest entity with respect to the reference element.
Objectives	Upon completion of this course you will be able to take advantage of the new and enhanced tools in CATIA V5-6R2012 for the following workbench: - Generative Shape Design
Prerequisites	Students attending this course should be familiar with the V5R19 CATIA Generative Shape Design workbench.
Available Online	Yes

CATIA Generative Shape Design V5-6R2013 Update (UHD23)

Course Code	CAT-en-UHD23-U-V5R23
Available Release	V5-6R2013
Duration	2 hours
Course Material	English
Level	Update
Audience	Surface Designers
Description	This course will teach you how to use the enhanced functionalities in the CATIA V5-6R2013 Generative Shape Design workbench. You will see for example, the way in which mid surfaces and parametric curves are created. You will also see how to create adaptive sweep surfaces using freely positioned sketches, extrapolate curves and surfaces using only their boundaries as inputs, and isolate Surfacic and Volumic Part Design features.
Objectives	Upon completion of this course you will be able to take advantage of the new and enhanced tools in CATIA V5-6R2013 for the following workbench: - Generative Shape Design
Prerequisites	Students attending this course should be familiar with the V5-6R2012 CATIA Generative Shape Design workbench.
Available Online	Yes

CATIA Generative Shape Design V5R20 Update (UHD20)

Course Code	CAT-en-UHD20-U-V5R20
Available Release	V5R20
Duration	1 hour
Course Materials	English , French , German , Japanese
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 Generative Shape Design V5R21 Update (UHD21)

Course Code	CAT-en-UHD21-U-V5R21
Available Release	V5R21
Duration	2 hours
Course Materials	English , French , German , Japanese
Level	Update
Audience	Surface Designers
Description	This course will teach you how to use the new and enhanced functionalities of the CATIA V5R21 Generative Shape Design workbench.
Objectives	Upon completion of this course you will be able to use: - A New Functionality for Creating Contours - Enhancements to Multi-Sections Surface - An Enhancement to Offset Surface - An Enhancement to Sweep Surface - Other Enhancements
Prerequisites	Students attending this course should be familiar with V5R20 CATIA Generative Shape Design
Available Online	Yes

CATIA Imagine and Shape (IMA)

Course Code	CAT-en-IMA-F-V5R23
Available Releases	V5-6R2013 , V5R19 , V5R20 , V5R21
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: - Create and modify curves - Create subdivision surfaces using tools specific to the Imagine and Shape workbench - Modify product style surfaces
Prerequisites	Students attending this course should know the CATIA Generative Shape Design workbench.
Available Online	Yes

CATIA Surface Design Expert (GSD)

Course Code	CAT-en-GSD-A-V5R23
Available Releases	V5-6R2013 , V5R19 , V5R20 , V5R21
Duration	16 hours
Course Material	English
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

CATIA Surface Design Expert (GSD)

Available Online	Yes

CATIA Surface Design Expert Added Exercises (GSD)	
Course Code	CAT-en-GSD-X-V5R23
Available Releases	V5-6R2013 , V5R19 , V5R20 , V5R21
Duration	16 hours
Course Material	English
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 this course you will be able to: - Create advanced wireframe and surfaces using the recommended techniques - Apply 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-V5R23
Available Releases	V5-6R2013 , V5R19 , V5R20 , V5R21
Duration	24 hours
Course Material	English
Level	Fundamental
Audience	Surface Designers and CATIA V5 Designers
Description	This course will teach you how to create curves and surfaces using the Generative Shape Design workbench. You will learn how to analyze the wireframe and surface quality and rectify the defects. You will also learn how to work in a multi-model environment with published surfaces.
Objectives	Upon completion of this course you will be able to: - Understand and use the tools of 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 the quality of surfaces and rectify the defects - Manage the surfaces in a multi-model environment
Prerequisites	Students attending this course should be familiar with the fundamentals of CATIA V5.
Available Online	Yes

CATIA V5 Icem Shape Design Advanced (IEX5)

Course Code	CAT-en-IEX5-A-V5R23
Available Releases	V5-6R2013 , V5R21
Duration	12 hours
Course Material	English
Level	Advanced
Audience	Surface Designers who are required to create high-quality surfaces
Description	This course will teach you how to use the advanced surface creation options, the advanced analysis tools, and the Expert tools of CATIA V5 Icem Shape Design. You will learn how to create high-quality surfaces, and analyze and improve the quality of the surfaces.
Objectives	Upon completion of this course you will be able to: - Create high quality surfaces - Analyze surface quality - Correct surface defects
Prerequisites	- Students attending this course should be familiar with CATIA V5 Fundamentals and CATIA Icem Shape Design Fundamentals. - CATIA V5 for Surfaces is also recommended.
Available Online	Yes

CATIA V5 Icem Shape Design Fundamentals (ICM)

Course Code	CAT-en-ICM-F-V5R23
Available Releases	V5-6R2013 , V5R21
Duration	40 hours
Course Material	English
Level	Fundamental
Audience	High quality surface designers
Description	This course will teach you how to use the ISD workbench to create good quality curves and Class A surfaces. You will learn how to analyze the wireframe and surface quality and interpret the results in order to correct visual defects.
Objectives	Upon completion of this course you will be able to: - Create robust class A surface models - Create good quality curves - Assemble, relimit and connect the surfaces smoothly to meet connectivity constraints - Analyze surface quality - Correct surface defects - Manage surface models
Prerequisites	- CATIA V5 Fundamentals - Some knowledge of Mechanical Surface Design is advisable
Available Online	Yes

Developed Shapes (DL1)

Course Code	CAT-en-DL1-F-V5R21
Available Releases	V5R19 , V5R20 , V5R21
Duration	4 hours
Course Material	English
Level	Fundamental
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 be familiar with the fundamentals of CATIA and Generative Surface Design
Available Online	Yes

FreeStyle Shaper, Optimizer & Profiler (FSS)

Course Code	CAT-en-FSS-F-V5R23
Available Releases	V5-6R2013 , V5R19 , V5R20 , V5R21
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 know Surface Design in CATIA V5.
Available Online	Yes

Freestyle Sketch Tracer (FSK)

Course Code	CAT-en-FSK-F-V5R23
Available Releases	V5-6R2013 , V5R19 , V5R20 , V5R21
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 know the basics of CATIA V5.
Available Online	Yes

Generative Shape Design Optimizer (GSO)

Course Code	CAT-en-GSO-F-V5R21
Available Releases	V5R19 , V5R20 , V5R21
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 know Surface Design in CATIA V5.
Available Online	Yes

Generative Shape Design V5R19 Update (UHD19)	
Course Code	CAT-en-UHD19-U-V5R19
Available Release	V5R19
Duration	4 hours
Course Materials	English , French , German , Japanese
Level	Update
Audience	CATIA Surface Designers
Description	This course will teach you how to use the enhanced V5R19 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 Generative Shape Design V5R18 Course
Available Online	Yes

Introduction to the mathematical concepts of CATIA V5 (MTH)

Course Code	CAT-en-MTH-F-V5R21
Available Releases	V5R19 , V5R20 , V5R21
Duration	4 hours
Course Material	English
Level	Fundamental
Audience	GSD and/or FreeStyle users
Description	This course will teach you about the mathematical concepts in CATIA V5, and how to use them to define curves and surfaces.
Objectives	Upon completion of this course you will be able to: - Understand and use mathematical concepts in CATIA V5 - Define curves and surfaces using them
Prerequisites	Students attending this course should have knowledge of GSD and FreeStyle Fundamentals
Available Online	Yes

Methodology for Cloud to Surface (CTS)

Course Code	CAT-en-CTS-F-V5R21
Available Releases	V5R19 , V5R20 , V5R21
Duration	8 hours
Course Material	English
Level	Fundamental
Audience	Surface Designers
Description	This course will teach you how to use Digitized Shape Editor to create a surface from cloud of points. You will also learn how to differentiate among different methods of creating surfaces.
Objectives	Upon completion of this course you will be able to: - Create a surface from a cloud of points, using Digitized Shape Editor - Create curves and surfaces for the arrangement of the points - Reconstruct freestyle and quick curves and surfaces - Differentiate among various surface creation methodologies
Prerequisites	Students attending this course should be familiar with the FreeStyle, Quick Reconstruction and Digitized Shape Editor workbenches.
Available Online	Yes

Photo Studio (PHS)

Course Code	CAT-en-PHS-F-V5R21
Available Releases	V5R19 , V5R20 , V5R21
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 - Create and apply stickers to your models - Create animations using different techniques
Prerequisites	Students attending this course should know CATIA V5 Fundamentals
Available Online	Yes

Photo Studio Optimizer (PSO)

Course Code	CAT-en-PSO-F-V5R21
Available Releases	V5R19 , V5R20 , V5R21
Duration	4 hours
Course Material	English
Level	Fundamental
Audience	Industrial Stylists and Designers
Description	This course will teach you how 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: - Optimize the quality of your images - Use rendering tools such as Bump Mapping and Global Illumination.
Prerequisites	Students attending this course should know CATIA V5 Fundamentals and the Photo Studio product.
Available Online	Yes

Quick Surface Reconstruction (QSR)

Course Code	CAT-en-QSR-F-V5R21
Available Releases	V5R19 , V5R20 , V5R21
Duration	8 hours
Course Material	English
Level	Fundamental
Audience	Surface Designers
Description	This course will teach you how to use CATIA features in Quick Surface Reconstruction workbench in the Reverse Engineering phase to create surfaces using a given Point Cloud data. You will also learn how to use these features in real time industrial scenario.
Objectives	Upon Completion of this course you will be able to: - Create scans from point cloud data and use them to draw curves and surfaces - Create model and fillet model - Create deviation analysis and annotations
Prerequisites	Students attending this course should know the fundamentals of CATIA V5. They should also be familiar with Surface Design in CATIA V5 and the Digitized Shape Editor product.
Available Online	Yes

Realistic Shape Optimizer (RSO)

Course Code	CAT-en-RSO-F-V5R21
Available Releases	V5R19 , V5R20 , V5R21
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 to deform a surface using the displacement file resulting from Finite Element Analysis.
Prerequisites	Students attending this course should be familiar with the basics of wireframe and surfaces creation.
Available Online	Yes

Real Time Rendering (RTR)

Course Code	CAT-en-RTR-F-V5R21
Available Releases	V5R19 , V5R20 , V5R21
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 know CATIA V5 Fundamentals
Available Online	Yes

Shape Sculptor (DSS)

Course Code	CAT-en-DSS-F-V5R21
Available Releases	V5R19 , V5R20 , V5R21
Duration	8 hours
Course Material	English
Level	Fundamental
Audience	Style designers, Modelers
Description	This course will teach you how to use the Shape Sculptor workbench to process digitized data.You will learn how to import, analyze and enhance the meshes.You will also lear how to modify a mesh by adding details or deforming shapes.
Objectives	Import and process the digitized data - Analyze and enhance a mesh - Modify the meshes by adding details or deforming shapes
Prerequisites	Students attending this course should be familiar with CATIA V5 fundamentals.
Available Online	Yes

CATIA
Solutions V5

Photo Rendering (PRS)

Course Code	CRB-en-PRS-F-V5R21
Available Releases	V5R19 , V5R20 , V5R21
Duration	8 hours
Course Material	English
Level	Fundamental
Audience	Mechanical Engineers with styling project background
Description	This course will teach you the methodologies to use Photo Rendering for creating high quality rendered images using the CATIA V5 Data.
Objectives	Upon completion of this course you will be able to generate high quality pictures using the CATIA V5 data.
Prerequisites	Students attending this course should know the fundamentals of CATIA V5 and CATIA Photo Studio
Available Online	Yes

Companion
Companion Studio

Companion Studio (WTR)

Course Code	WLS-en-WTR-F-V5R23
Available Releases	V5-6R2013 , V5R19 , V5R20 , V5R21
Duration	16 hours
Course Material	English
Level	Fundamental
Audience	New Companion Studio users and Course Developers
Description	This course introduces you to the Companion Studio, which is an authoring tool for "Companion". The course first discusses the Instructional Design aspects that have been kept in mind while designing the Companion Studio. You will then learn how to create your workspace, projects, and components. Next, you will learn how to create skillets and job aids, which are the elementary building blocks for creating a course. You will also practice creating a course with these building blocks, and refining and optimizing the course structure.
Objectives	Upon completion of this course you will be able to: - Describe the features and benefits of Companion Desktop and Companion Studio - Apply the key principles of Companion Studio to create high-quality training material - Create and manage your projects and components - Create and modify skillets, jobaids and use them to define courses - Create and modify a course structure - Create different types of simulations and assessments - Distinguish between BTV and RTV, and publish your projects

Companion Studio (WTR)

Prerequisites	None
Available Online	Yes

Companion Studio - Advanced (WTR)

Course Code	WLS-en-WTR-A-V5R23
Available Releases	V5-6R2013 , V5R19 , V5R20 , V5R21
Duration	4 hours
Course Material	English
Level	Advanced
Audience	Companion Studio users
Description	This course will teach you how to design and implement the complex architecture for courseware development projects. You will learn about the mechanism to translate English courses into other languages. You will also learn how to manage the visibility of learning objects, assign licenses, and perform various administrative functions in Companion Studio.
Objectives	Upon completion of this course you will be able to: - Implement the development architecture for courseware projects - Edit a curriculum and manage the visibility of the learning objects - Implement the translation mechanism for courseware development - Manage the licenses for the courseware projects - Perform administrative functions in Companion Studio
Prerequisites	Students attending this course should have attended the Companion Studio course.
Available Online	Yes

DELMIA

DELMIA Assembly V5

Assembly Process Planner (APN)

Course Code	DEL-en-APN-F-V5R23
Available Releases	V5-6R2013 , V5R19 , V5R21
Duration	8 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 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 be familiar with the DELMIA V5 fundamentals and E5 Process Engineer
Available Online	Yes

Assembly Process Planner - Auto (APA)

Course Code	DEL-en-APA-F-V5R19
Available Release	V5R19
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	Yes

DPM Assembly (ASY)

Course Code	DEL-en-ASY-F-V5R23
Available Releases	V5-6R2013 , V5R19 , V5R20 , V5R21
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 be familiar with V5 fundamentals and Mechanical Engineering in general.
Available Online	Yes

DPM Hub Assembly (HAS)

Course Code	DEL-en-HAS-F-V5R19
Available Release	V5R19
Duration	24 hours
Course Material	English
Level	Fundamental
Audience	Simulation, Industrial,Mechanical Emgineers
Description	With the basic ability to work within V5 Software, this course in Hub Assembly will introduce you to the initial aspects of preparing a simulation world for an assembly project. The assumption is that the software is going to be used with the Manufacturing Hub and other Software such as Process Engineer.
Objectives	Upon completion of this Course you will be able to: - Create the Working Environment - Create a Simulation for an aseembly - Enhance the Simulation - Analyze the Simulation - Create Output Files - Conduct Tool Validation
Prerequisites	Students attending this course should have knowledge of V5 fundamentals and Mechanical Engineering
Available Online	Yes

DELMIA

DELMIA D5 QUEST V5

Advanced QUEST (AQT)

Course Code	DEL-en-AQT-A-V5R19
Available Release	V5R19
Duration	24 hours
Course Material	English
Level	Advanced
Audience	Mechanical Engineers, Simulation Engineers, or Industrial Engineers with processing, simulation, or analysis responsibilities
Description	This course will teach you how to create discrete event simulation that allows to design and analyze complex systems. You will learn to create various elements that form the system.
Objectives	Upon completion of this course you will be able to: - Build a program in SCL and BCL - Generate graphical outputs
Prerequisites	Students attending this course should have knowledge of Mechanical design and Discrete event simulation
Available Online	Yes

QUEST (QST)	
Course Code	DEL-en-QST-F-V5R23
Available Releases	V5-6R2013 , V5R19 , V5R21
Duration	32 hours
Course Material	English
Level	Fundamental
Audience	Mechanical Engineers, Simulation Engineers, and Industrial Engineers who are responsible for processing, simulating, and analyzing industrial systems.
Description	This course will teach you how to create a discrete event simulation that will enable you to design and analyze complex systems. You will learn how to create the basic elements (such as Parts, Source, and Sink) of a Production System and the various Material Handling Systems (MHS) that facilitate in the movement of Parts. You will also learn how to create the Kinematics Parts and Devices and simulate the model by defining the Shifts and Failures.
Objectives	Upon completion of this course you will be able to: - Create the basic elements that form the Queuing Event Simulation Tool (QUEST) model - Build the elements of Material Handling Systems that are specific to the QUEST model - Create and manipulate kinematics devices - Define Shifts and Failures - Simulate the model
Prerequisites	Students attending this course should be familiar with the fundamentals of Mechanical Design and Discrete Event Simulation.

QUEST (QST)

Available Online	Yes

DELMIA

DELMIA Human V5

Human Option (HSO)

Course Code	DEL-en-HSO-F-V5R20
Available Releases	V5R19 , V5R20
Duration	24 hours
Course Material	English
Level	Fundamental
Audience	New DELMIA V5 users with Manufacturing Assembly responsibilities
Description	This course will teach you how to create virtual mannequins, manipulate them, modify their dimensions, and realize joint movements. You will learn how to place the mannequin into a DPM Assembly for tracking, and Robotics for establishing I/O signals. You will also learn about the expanded capability for walking and analyzing the mannequin actions within the project.
Objectives	Upon completion of this course you will be able to: - Create the working environment - Create a manikin and a workspace - Perform a human task simulation
Prerequisites	Students attending this course should know Mechanical Engineering and the Windows Operating System
Available Online	Yes

Virtual Ergonomics Solutions (HUM)

Course Code	DEL-en-HUM-F-V5R20
Available Releases	V5R19 , V5R20
Duration	16 hours
Course Material	English
Level	Fundamental
Audience	New DELMIA V5 users with Manufacturing Assembly responsibilities
Description	This course teaches you how to use the 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 manikins interact with a product and its environment.
Objectives	Upon completion of this course you will be able to: - Create the working environment - Create a manikin and a workspace - Use the Human Measurements Editor - Perform a Human Activity Analysis - Perform a Human Posture Analysis - Perform a Human Task Simulation
Prerequisites	Students attending this course must know Mechanical Engineering and the Windows Operating System
Available Online	Yes

DELMIA

DELMIA Lofting V5

DPM Structure Lofting (DST)

Course Code	DEL-en-DST-F-V5R20
Available Releases	V5R19 , 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 operations - Initial marking and cutting operations - Plate forming operations - Profile bending operations - Extraction of workshop documents
Prerequisites	Students attending this course should be familiar with the CATIA V5 Fundamentals and DELMIA Basic Process Engineer courses
Available Online	Yes

Structure Manufacturing Preparation (SMP)

Course Code	DEL-en-SMP-F-V5R19
Available Release	V5R19
Duration	32 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.
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	Yes

DELMIA

DELMIA Machining V5

DPM Machining Process Planner (MPP)

Course Code	DEL-en-MPP-F-V5R20
Available Releases	V5R19 , 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 the Lathe Process Plan - Create process plan for Inseperable Assemblies - Use the Manufacturing Hub to map processes
Prerequisites	Students attending this course should be familiar with the CATIA V5 Fundamentals course, Machining terminology and Process Planning
Available Online	Yes

NC Machine Tool Builder (MBG)

Course Code	DEL-en-MBG-F-V5R19
Available Release	V5R19
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	Yes

NC Machine Tool Simulation (MSG)

Course Code	DEL-en-MSG-F-V5R19
Available Release	V5R19
Duration	16 hours
Course Material	English
Level	Fundamental
Audience	Design engineers, 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. It will also teach you to run the machine simulation. The collisions detected are analyzed and fixed.
Objectives	Upon completion of this course you will be able to: - Assign an NC machine to a Part Operation - Assign a turret to a Manufacturing Program - Mount tools and workpieces on a Machine - Run the machine simulation - Set up, detect and analyze simulation faults - Create a collision report
Prerequisites	Students attending this course should have knowledge of Mechanical design and NC machine tools
Available Online	Yes

DELMIA

DELMIA Manufacturing Hub V5

Basic Process Engineer (DPE)

Course Code	DEL-en-DPE-F-V5R23
Available Releases	V5-6R2013 , V5R19 , V5R20 , V5R21
Duration	16 hours
Course Material	English
Level	Fundamental
Audience	Mechanical and Industrial Engineers
Description	This course will teach you how to implement DELMIA Process Engineer in your environment. You will learn how to recognize process risks, reuse proven processes, trace changes and decisions, and access scattered process knowledge. You will also learn how to use DELMIA Process Engineer during the development of a new project.
Objectives	Upon completion of this course you will be able to: - Organize, evaluate, and manage the Product, Process, and Resource data in the project tree structure - Establish relationships between the products, processes, and resources - Integrate the PPR Hub with QUEST and DPM - Import data from the PPR Hub into QUEST and DPM
Prerequisites	Students attending this course must be familiar with Mechanical Engineering and fundamentals of DELMIA V5 in general.
Available Online	Yes

DELMIA

DELMIA PLM Express V5

Automation (AUTO)

Course Code	DEL-en-AUTO-F-V5R20
Available Releases	V5R19 , 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 a basic control logic - Create an 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 know Systems Control and the fundamentals of DELMIA V5
Available Online	Yes

PLMX Arc Welding (ARB)

Course Code	DEL-en-ARB-F-V5R20
Available Releases	V5R19 , 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 - Create arc welding tasks - Optimize robot motion - Work with Arc Macro Programming
Prerequisites	Students attending this course should be familiar with the CATIA V5 Fundamentals course and Mechanical Engineering in general
Available Online	Yes

PLMX Human (XHM)

Course Code	DEL-en-XHM-F-V5R20
Available Releases	V5R19 , V5R20
Duration	24 hours
Course Material	English
Level	Fundamental
Audience	Simulation, Mechanical and Industrial Engineers
Description	This course will teach 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 the simulation of a human entity and its workplace environment - Create a manikin to assess the Form, Fit and Function of a product - Analyze the manikin's Kinematics, Posture, and Activity
Prerequisites	Students attending this course should be familiar with the CATIA V5 Fundamentals course
Available Online	Yes

PLMX Spot Robotics (SRB)

Course Code	DEL-en-SRB-F-V5R20
Available Releases	V5R19 , V5R20
Duration	24 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 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 be familiar with Mechanical Engineering and the Windows Operating System
Available Online	Yes

PLMX Workcell Builder (RWB)

Course Code	DEL-en-RWB-F-V5R20
Available Releases	V5R19 , 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 be familiar with Mechanical Engineering and the Windows Operating System
Available Online	Yes

DELMIA

DELMIA Robotics V5

Body in White Fastener Planning (BIW)

Course Code	DEL-en-BIW-F-V5R20
Available Releases	V5R19 , V5R20
Duration	16 hours
Course Material	English
Level	Fundamental
Audience	Systems and Controls Engineers, Mechanical and Industrial Engineers.
Description	This course will teach 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 - Work with a spare wheel assembly dataset using the Assembly Process Planner tool, the Body-In-White Fastener Process Planning tool, and the V5 Robotics tool. - Use & define Line concept - Perform capacity planning - Use the Tool Selection Assistant
Prerequisites	Students attending this course should be familiar with CATIA V5 Fundamentals and DELMIA Basic Process Engineer courses

Body in White Fastener Planning (BIW)

Available Online	Yes

V5 Robotics (ROB)

Course Code	DEL-en-ROB-F-V5R23
Available Releases	V5-6R2013 , V5R19 , V5R20 , V5R21
Duration	24 hours
Course Material	English
Level	Fundamental
Audience	Simulation, Industrial, Mechanical Engineers
Description	This course will teach you how to create, program, simulate, and validate an entire robot workcell for any manufacturing industry. You will learn how to create a tag and robot task. You will also learn to create Input/ Output (IOs) connections and validate them in context with the organizational resource. Finally, you will learn to create robot controller profiles.
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 be familiar with DELMIA V5 Fundamentals and Mechanical Engineering in general.
Available Online	Yes

ENOVIA
Digital Mock-Up V5

Digital Mock-Up Basics (DMB)

Course Code	ENOV-en-DMB-F-V5R23
Available Releases	V5-6R2013 , V5R19 , V5R20 , V5R21
Duration	4 hours
Course Material	English
Level	Fundamental
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	Understand and use the capabilities of the Digital Mock-Up workbenches - Manage assembly components and explore their mock-up details - Manipulate view points - Perform measurements - Highlight critical areas using 2D and 3D annotations - Link information to external files
Prerequisites	Students attending this course should should be familiar with CATIA V5 basics
Available Online	Yes

Digital Mock-Up Navigator (DMN)

Course Code	ENOV-en-DMN-F-V5R23
Available Releases	V5-6R2013 , V5R19 , V5R20 , V5R21
Duration	8 hours
Course Material	English
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	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	ENOV-en-DMO-F-V5R23
Available Releases	V5-6R2013 , V5R19 , V5R20 , V5R21
Duration	4 hours
Course Material	English
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	Identify 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	ENOV-en-SPA-F-V5R23
Available Releases	V5-6R2013 , V5R19 , V5R20 , V5R21
Duration	4 hours
Course Material	English
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	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	ENOV-en-ANR-F-V5R23
Available Releases	V5-6R2013 , V5R19 , V5R20 , V5R21
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 analyses performed by the 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 using the CATIA Analysis and Simulation workbench, or using third party applications - Generate result images and analysis reports - Manage results using various functionalities like Animation, Extrema Detection, Images Layout, and Cut Plane Analysis.
Prerequisites	Students attending this course should be familiar with DMU Basics, DMU Navigator, DMU Space Analysis
Available Online	Yes

DMU Fitting Simulator (FIT)

Course Code	ENOV-en-FIT-F-V5R23
Available Releases	V5-6R2013 , V5R19 , V5R20 , V5R21
Duration	4 hours
Course Material	English
Level	Fundamental
Audience	Mechanical Designers
Description	This course will teach you how to define the process of mounting and dismounting 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: - Use the capabilities of the Fitting Simulator workbench - Create tracks to define the motion path of assembly components - Create sequences to define the order in which the tracks will take place - Play the motion sequences - Analyze clashes during sequence replays
Prerequisites	Students attending this course should be familiar with DMU Basics and DMU Space Analysis.
Available Online	Yes

DMU Kinematics Simulator (KIN)

Course Code	ENOV-en-KIN-F-V5R23
Available Releases	V5-6R2013 , V5R19 , V5R20 , V5R21
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: - Apply the general processes 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 be familiar with DMU Basics and DMU Space Analysis.
Available Online	Yes

ENOVIA

ENOVIA PLM Express V5

ENOVIA SmarTeam - CATIA PLM Express Fundamentals (CTPE)

Course Code	CRB-en-CTPE-F-V5R21
Available Releases	V5R19 , V5R20 , V5R21
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

ENOVIA

ENOVIA SmarTeam V5

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

Course Code	ENOV-en-STA-F-V5R23
Available Releases	V5-6R2013 , V5R19 , V5R20 , V5R21
Duration	24 hours
Course Material	English
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	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-V5R23
Available Releases	V5-6R2013 , V5R19 , V5R20 , V5R21
Duration	8 hours
Course Material	English
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	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-V5R23
Available Releases	V5-6R2013 , V5R19 , V5R20 , V5R21
Duration	8 hours
Course Material	English
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	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-V5R23
Available Releases	V5-6R2013 , V5R19 , V5R20 , V5R21
Duration	16 hours
Course Material	English
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	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-V5R23
Available Releases	V5-6R2013 , V5R19 , V5R20 , V5R21
Duration	4 hours
Course Material	English
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	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-V5R23
Available Releases	V5-6R2013 , V5R19 , V5R20 , V5R21
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	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-V5R23
Available Releases	V5-6R2013 , V5R19 , V5R20 , V5R21
Duration	8 hours
Course Material	English
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	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

ENOVIA V5 VPLM

ENOVIA V5 VPM for Engineering Collaboration (LEH)	
Course Code	ENOV-en-LEH-F-V5R23
Available Releases	V5-6R2013 , V5R19 , V5R20 , V5R21
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	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 be familiar with ENOVIA V5 VPM Fundamentals & CATIA V5 Fundamentals
Available Online	Yes

ENOVIA V5 VPM for Lifecycle Collaboration (LCN)

Course Code	ENOV-en-LCN-F-V5R23
Available Releases	V5-6R2013 , V5R19 , V5R20 , V5R21
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	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 be familiar with ENOVIA V5 VPM User Fundamentals.

ENOVIA V5 VPM for Lifecycle Collaboration (LCN)

Available Online	Yes

ENOVIA V5 VPM for Supply Chain Collaboration (WPE)

Course Code	ENOV-en-WPE-F-V5R23
Available Releases	V5-6R2013 , V5R19 , V5R20 , V5R21
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	Perform generic operations on the reconciliator - Perform queries and Apply reconciliator rules- Perform generic operations on the reconciliator - Reconcile data and perform operations on this data - Perform queries and Apply reconciliator rules - Reconcile data and perform operations on this data
Prerequisites	Students attending this course should be familiar with ENOVIA V5 VPM Fundamentals and Engineering Collaboration.
Available Online	Yes

ENOVIA V5 VPM Fundamentals (LUF)

Course Code	ENOV-en-LUF-F-V5R23
Available Releases	V5-6R2013 , V5R19 , V5R20 , V5R21
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

SIMULIA V5 Abaqus

Introduction to Abaqus for CATIA V5 (AFC)

Course Code	SIM-en-AFC-F-V5R21
Available Release	V5R21
Duration	16 hours
Course Material	English
Level	Fundamental
Audience	This course is recommended for engineers with experience using Abaqus and CATIA V5, especially the Generative Structural Analysis workbench.
Description	This course teaches you how perform analyses of the parts and assemblies using Abaqus for CATIA. You will be taught to work with nonlinear analysis tools. You will become familier with the Structural Analysis workbech and Thermal Analysis workbench. You will also become familier with Explicit Dynamic Analysis.
Objectives	Upon completion of this course you will be able to: - Integrate AFC with CATIA V5 - Manage analysis cases and analysis steps - Manage loads, boundary conditions and fields - Manage model, assembly and part properties - Understand geometric nonlinearity - Understand the contact - Perform static and thermal analysis - Analyse the results
Prerequisites	None
Available Online	Yes

SIMULIA

SIMULIA V5 Analysis

Introduction to Nonlinear Structural Analysis And Thermal Analysis (ANL)

Course Code	SIM-en-ANL-F-V5R21
Available Releases	V5R19 , V5R20 , V5R21
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

Introduction to Nonlinear Structural Analysis And Thermal Analysis (ANL)

Available Online	Yes