

COURSE CATALOG

3DEXPERIENCE
July 2014



3DEXPERIENCE

3DS Learning Solutions | Course Catalog

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CATIA 3DEXPERIENCE Platform

Gateway to the 3DEXPERIENCE Platform (GTX)

Course Code	CAT-en-GTX-F-15-141
Available Release	3DEXPERIENCE R2014x
Duration	4 hours
Course Material	English
Level	Fundamental
Audience	Users of the 3DEXPERIENCE Platform
Description	This course will teach you the new interface and functionalities of the 3DEXPERIENCE Platform. You will learn how to connect to the platform, manage your projects, search documents and share content along with knowledge or skills with other users. Short videos will show you how to search and visualize the results, explore or open your 3D data, filter the data, manipulate the tree, use the basic functionalities (section, favorites, change view,...).
Objectives	<p>Upon completion of this course you will be able to:</p> <ul style="list-style-type: none"> - Understand the 3DEXPERIENCE interface - Connect to the 3DEXPERIENCE Platform - Access your Dashboard - Use the 6WTags for searching content - Share various documents with other users through 3DSpace - Use standard menus and commands - Explain the functionalities of various apps in the 3DEXPERIENCE Platform - Import new data and export them as 3D XML files - Search for a 3D data using different methods - Explore and open 3D data - Manipulate the tree - Filter data
Prerequisites	There are no prerequisites for this course

Gateway to the 3DEXPERIENCE Platform (GTX)

Available Online

Yes

CATIA

3D Modeling

CATIA Generative Shape Design Essentials (GSD)	
Course Code	CAT-en-GSD-F-15-141
Available Release	3DEXPERIENCE R2014x
Duration	24 hours
Course Material	English
Level	Fundamental
Audience	Surface Designers
Description	This course will teach you how to use the Generative Shape Design app to create curves and surfaces. You will learn how to assemble, re-limit and connect the geometries smoothly. You will also learn how to analyze the wireframe and the surface quality and rectify the detected defects.
Objectives	<p>Upon completion of this course you will be able to:</p> <ul style="list-style-type: none"> - Create curves and improve the quality of the imported wireframes - Create surfaces based on the wireframe geometries - Assemble, re-limit and connect the surfaces smoothly to achieve the topology - Analyze the surface quality and heal the defects
Prerequisites	Students attending this course should have completed the Gateway to the 3DEXPERIENCE Platform course.
Available Online	Yes

CATIA Generative Wireframe and Surface Essentials (GS1)

Course Code	CAT-en-GS1-F-15-141
Available Release	3DEXPERIENCE R2014x
Duration	20 hours
Course Material	English
Level	Fundamental
Audience	Surface Designers
Description	This course will teach you how to use the Generative Wireframe and Surface app to create curves and surfaces. You will learn how to assemble, re-limit and connect the geometries smoothly. You will also learn how to analyze the wireframe and the surface quality and rectify the detected defects.
Objectives	<p>Upon completion of this course you will be able to:</p> <ul style="list-style-type: none"> - Create curves and improve the quality of the imported wireframes - Create surfaces based on the wireframe geometries - Assemble, re-limit and connect the surfaces smoothly to achieve the topology - Analyze the surface quality and heal the defects
Prerequisites	Students attending this course should have completed the Gateway to the 3DEXPERIENCE Platform course.
Available Online	Yes

CATIA Natural Shape Essentials (LSP)	
Course Code	CAT-en-LSP-F-15-141
Available Release	3DEXPERIENCE R2014x
Duration	8 hours
Course Material	English
Level	Fundamental
Audience	Conceptual Designers, Stylists, Simulation and Manufacturing Engineers
Description	This course will introduce you to the CATIA Natural Shape app and its unique working environment. You will learn how to use the app to conceptualize, create and modify mechanical parts and shapes. The course features short- duration demos followed by exercises to allow you to practice using the tools. You will learn the related theory, tips and recommendations while performing the exercises.
Objectives	<p>Upon completion of this course you will be able to:</p> <ul style="list-style-type: none"> - Create a conceptual design directly in 3D - Use the hybrid design environment to conceptualize your designs - Work on the structure to create the 3D parts - Navigate through the structure and position the parts - Reuse the existing designs in the 3D models
Prerequisites	Students attending this course should have completed the Gateway to the 3DEXPERIENCE Platform course.
Available Online	Yes

CATIA Part Design Essentials (PDG)	
Course Code	CAT-en-PDG-F-15-141
Available Release	3DEXPERIENCE R2014x
Duration	24 hours
Course Material	English
Level	Fundamental
Audience	Mechanical Design Engineers
Description	This course will teach you how to create a 3D model using Part Design app in the 3DEXPERIENCE platform. You will learn different feature-based tools to build a 3D model and some tools for review and modification of the model.
Objectives	<p>Upon completion of this course you will be able to:</p> <ul style="list-style-type: none"> - Create a New PLM Object - Create and constrain 2D sketches - Complete a 3D model using features - Review and edit the features - Re-use the existing features in 3D models - Create advanced sketch-based and surface features - Create parameters and formulas in the 3D model
Prerequisites	Students attending this course should have completed the Gateway to the 3DEXPERIENCE Platform course.
Available Online	Yes

Transition to the 3DEXPERIENCE Platform for Designers (3DT)

Course Code	CAT-en-3DT-F-15-141
Available Release	3DEXPERIENCE R2014x
Duration	16 hours
Course Material	English
Level	Fundamental
Audience	Designers who need to work with mechanical and styled parts, CATIA V5 Designers
Description	<p>This course addresses the needs of both Mechanical and Surface Designers. It will first teach you how to design a new part with the 3DEXPERIENCE Platform, insert the part in a product then position and constrain it. You will learn how to assign material properties and compute weight, then complete a simple drawing. Finally, you will learn how to create a new part version, replace the original part and update the product. More advanced topics will also be covered: they will teach you how to manage complex product structures, create product features, manage catalogs and analyze assemblies. There are specific exercises for Mechanical and Surface Designers at the end of the course.</p>
Objectives	<p>Upon completion of this course you will be able to:</p> <ul style="list-style-type: none"> - Create new products and parts - Insert a part in a product and position it - Apply materials to parts - Calculate the weight of a product - Insert and complete a drawing - Create a new part version - Replace a part and update a product

Transition to the 3DEXPERIENCE Platform for Designers (3DT)

Prerequisites	Students attending this course should have completed the Gateway to the 3DEXPERIENCE platform course. They should also be familiar with V5 Part Design and Assembly Design workbenches.
Available Online	Yes

CATIA

3DSOpen Apps

CATIA Engineering Rules Capture Essentials (KWA)	
Course Code	CAT-en-KWA-F-15-141
Available Release	3DEXPERIENCE R2014x
Duration	12 hours
Course Material	English
Level	Fundamental
Audience	Mechanical Designers
Description	This course will teach you how to create Knowledge Advisor objects in order to embed parameters and design rules within your models. You will also learn how to check the models, reduce errors and automate the modifications.
Objectives	<p>Upon completion of this course you will be able to:</p> <ul style="list-style-type: none"> - Customize the specification tree to display knowledgware features - Create parametric models - Embed your design knowledge in the models - Automate the design and modification processes - Create design configurations using design tables
Prerequisites	Students attending this course should be familiar with the basics of CATIA and Enterprise Knowledge Language (EKL)
Available Online	Yes

CATIA Engineering Templates Capture Essentials (PKT)

Course Code	CAT-en-PKT-F-15-141
Available Release	3DEXPERIENCE R2014x
Duration	2 hours
Course Material	English
Level	Fundamental
Audience	Mechanical Design Engineers
Description	This course will teach you how to create and store engineering templates and then reuse and adapt them in a new context.
Objectives	<p>Upon completion of this course you will be able to:</p> <ul style="list-style-type: none"> - Create engineering templates - Reuse the templates in a new context
Prerequisites	<ul style="list-style-type: none"> - Students attending this course should have completed the Gateway to the 3DEXPERIENCE Platform course. - They should also be familiar with Part Design Essentials and the Engineering Rules Capture courses.
Available Online	Yes

Introduction to Enterprise Knowledge Language (EKL)	
Course Code	CAT-en-EKL-F-15-141
Available Release	3DEXPERIENCE R2014x
Duration	4 hours
Course Material	English
Level	Fundamental
Audience	Mechanical, Electrical and Piping Design Engineers
Description	This course will introduce you to Enterprise Knowledge Language, the driving force behind the Knowledgeware workbenches, which allow you to construct smart-models and automate design for maximum productivity.
Objectives	<p>Upon completion of this course you will be able to:</p> <ul style="list-style-type: none"> - Describe the EKL syntax and its usage - Directly manipulate CATIA objects through EKL scripts - Embed design logic in CATIA models using EKL
Prerequisites	Students attending this course should have completed the Gateway to the 3DEXPERIENCE Platform course. They should also be familiar with CATIA Mechanical Design fundamentals.
Available Online	Yes

CATIA Mechanical Systems

CATIA 3D Annotation Insight Essentials (LFT)

Course Code	CAT-en-LFT-F-15-141
Available Release	3DEXPERIENCE R2014x
Duration	4 Hours
Course Material	English
Level	Fundamental
Audience	Design, Quality and other such departments where interrogating and annotating the 3D model is a frequent or occasional requirement.
Description	This course teaches how to use the 3D Annotation Insight app to review and filter dimensions and the tolerance information contained within part and assembly documents. Students will learn how to hide / show annotations and captures, use the dimensioning and tolerancing annotations to enhance understanding and improve the decision making.
Objectives	<p>Upon completion of this course you will be able to:</p> <ul style="list-style-type: none"> - Access and visualize View, Capture and Annotation review features - Show / Hide individual 3D annotations and all annotations of a given type - Display FTA captures - Remove the FTA Clipping Plane of a capture - Filter the 3D annotations
Prerequisites	Students attending this course should have taken the Gateway to the 3DEXPERIENCE Platform course and should be familiar with the Windows Operating System.
Available Online	Yes

CATIA 3D Compose Essentials (LCP)	
Course Code	CAT-en-LCP-F-15-141
Available Release	3DEXPERIENCE R2014x
Duration	4 hours
Course Material	English
Level	Fundamental
Audience	Mechanical Engineers and Designers, and Design Architects
Description	This course will teach you how to create and manage product structures. You will explore a product and modify its structure by adding new products and exploding existing products. You will then scan the structure to activate a working product level, search for and add existing parts and use constraints to position the parts. Finally, you will create a new sub-product from a components list and use it to complete the product.
Objectives	<p>Upon completion of this course you will be able to:</p> <ul style="list-style-type: none"> - Explore a product and modify its structure using 3D Compose - Select the various working product levels using the Ladderfunctionality of 3D Compose - Search for a product and insert it in an existing assembly - Position the parts using constraints - Create a new sub-product from a component's list and use it to complete the product
Prerequisites	Students attending this course should have completed the Gateway to the 3DEXPERIENCE Platform course.
Available Online	Yes

CATIA Assembly Design Essentials (ASD)	
Course Code	CAT-en-ASD-F-15-141
Available Release	3DEXPERIENCE R2014x
Duration	24 hours
Course Material	English
Level	Fundamental
Audience	Mechanical Design Engineers
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 also learn how to analyze assemblies, design complex parts within an assembly environment and manage complex product structures.
Objectives	<p>Upon completion of this course you will be able to:</p> <ul style="list-style-type: none"> - Create a new product and add components to it - Move the components within a product by positioning them using assembly constraints - Modify an existing product structure - Design new parts in the context of a product - Check the mechanical properties of a product and analyze its degrees of freedom - Analyze interferences between parts and perform measurements
Prerequisites	Students attending this course should have completed the Gateway to the 3DEXPERIENCE Platform and the CATIA Part Design Essentials courses.
Available Online	Yes

CATIA Drafting Essentials (GDR)	
Course Code	CAT-en-GDR-F-15-141
Available Release	3DEXPERIENCE R2014x
Duration	24 hours
Course Material	English
Level	Fundamental
Audience	Draftsmen
Description	<p>This course will teach you how to create drawings using the Drafting app. You will learn how to produce a drawing by creating projection views and section views of a 3D model and adding basic dimensions. You will also learn how to use advanced tools to dress-up, annotate views and to customize the Drafting app to suit your needs.</p>
Objectives	<p>Upon completion of this course you will be able to:</p> <ul style="list-style-type: none"> - Configure the Drafting app to meet your specific requirements - Create simple projection views and section views of 3D parts - Position the views on a drawing sheet - Add dimensions and annotations to the views - Finalize the drawing sheet by adding borders and titleblocks. - Work with large assemblies - Create interactive views and geometry to prepare 2D drawings
Prerequisites	<p>Students attending this course should have completed the Gateway to the 3DEXPERIENCE Platform course and the CATIA 3DEXPERIENCE Part Design Essentials course.</p>

CATIA Drafting Essentials (GDR)

Available Online

Yes

CATIA Mechanical Systems Design Essentials (KIM)	
Course Code	CAT-en-KIM-F-15-141
Available Release	3DEXPERIENCE R2014x
Duration	4 hours
Course Material	English
Level	Fundamental
Audience	Mechanical Engineers
Description	This course will teach you how to create the architecture of a mechanism using simple wireframe elements and then complete the mechanism by adding 3D representations. You will also learn how to create a more complex mechanism using existing mechanisms, and finally how to animate the result.
Objectives	<p>Upon completion of this course you will be able to:</p> <ul style="list-style-type: none"> - Create a new mechanism architecture - Include alternative representations to complete the mechanism - Create a new macro mechanism from existing sub-mechanisms - Animate the mechanism
Prerequisites	Students attending this course should have completed the Gateway to the 3DEXPERIENCE Platform and the CATIA Assembly Design Essentials courses.
Available Online	Yes

CATIA Mechanical Systems Experience (KIN)	
Course Code	CAT-en-KIN-F-15-141
Available Release	3DEXPERIENCE R2014x
Duration	8 hours
Course Material	English
Level	Fundamental
Audience	Mechanical Engineers
Description	This course will teach you how to define a behavior by manually recording an animation and by using laws. You will also learn how to include analysis of measurements and accelerations. Further, you will learn how to generate traces, swept volumes and snapshots, which can be used while reviewing the simulation results.
Objectives	<p>Upon completion of this course you will be able to:</p> <ul style="list-style-type: none"> - Create a scenario manually or by using laws - Include measurement and interference analyses - Generate results - Create snapshots for review - Export the final simulation
Prerequisites	Students attending this course should have attended the CATIA Mechanical Systems Design Essentials course.
Available Online	Yes

CATIA

Multi-Discipline Engineering

CATIA Bent Part Design Essentials (SMB)	
Course Code	CAT-en-SMB-F-15-141
Available Release	3DEXPERIENCE R2014x
Duration	4 hours
Course Material	English
Level	Fundamental
Audience	Mechanical and Structural Designers
Description	This course will teach you how use the Bent Part Design app to create and modify a sheetmetal part. You will learn how to define the sheetmetal parameters and create features such as walls, bends, cutouts and corners. You will also learn different techniques for multi-selecting the objects and constraining the parts.
Objectives	<p>Upon completion of this course you will be able to:</p> <ul style="list-style-type: none"> - Define and modify the sheetmetal parameters - Create a sheetmetal part using the wall and bend features - Manage the folded and unfolded views of parts - Create cutouts, chamfers and corners - Constrain the parts
Prerequisites	Students attending this course should have completed the Gateway to the 3DEXPERIENCE Platform course.
Available Online	Yes

CATIA Sheet Metal Design Essentials (SMD)	
Course Code	CAT-en-SMD-F-15-141
Available Release	3DEXPERIENCE R2014x
Duration	16 hours
Course Material	English
Level	Fundamental
Audience	Mechanical and Structural Designers
Description	This course will teach you how to create a sheet metal part using standard wall, bend and stamping features. You will see how user features can be incorporated into the design and how to use both standard and user-defined materials. Finally you will learn how to create a flat pattern and produce a detailed, annotated drawing.
Objectives	<p>Upon completion of this course you will be able to:</p> <ul style="list-style-type: none"> - Create a sheet metal part using wall and bend features - Create stamped features - Use pre-defined sheet metal parameters - Manage folded and unfolded views - Export a finished flat pattern
Prerequisites	Students attending this course should have completed the Gateway to the 3DEXPERIENCE Platform and the CATIA Part Design Essentials courses.
Available Online	Yes

CATIA Weld Design Essentials (WDG)	
Course Code	CAT-en-WDG-F-15-141
Available Release	3DEXPERIENCE R2014x
Duration	4 hours
Course Material	English
Level	Fundamental
Audience	Mechanical Designers and Structural Designers
Description	This course will teach you how to create a welded assembly. You will learn how to join parts using appropriate Weld Features and how to generate associative Weld Drawings and Weld Reports.
Objectives	<p>Upon completion of this course you will be able to:</p> <ul style="list-style-type: none"> - Create and manage welded assemblies - Generate weld reports - Create welding drawings
Prerequisites	Students attending this course should have completed the CATIA Assembly Design Essentials course.
Available Online	Yes

CATIA Styling

CATIA Imagine and Shape Essentials (IMA)	
Course Code	CAT-en-IMA-F-15-141
Available Release	3DEXPERIENCE R2014x
Duration	16 hours
Course Material	English
Level	Fundamental
Audience	Shape Designers, Product Stylists and Industrial Designers
Description	This course will teach you how to use the CATIA Imagine & Shape app to create, modify and improve product shapes and styles. You will learn how to use the Sketch Tracer app to import stylist's images in the 3DEXPERIENCE platform. You will also learn how to create an environment for a designed model and render it.
Objectives	<p>Upon completion of this course you will be able to:</p> <ul style="list-style-type: none"> - Import and position sketches in CATIA - Create subdivision surfaces using tools specific to the Imagine and Shape app - Modify the style surfaces using Generative Shape Design tools - Create the required environment around a model - Apply materials, textures and 3D textures to the created models
Prerequisites	Students attending this course should have completed the Gateway to the 3DEXPERIENCE Platform course. Additionally, they should be familiar with the fundamentals of CATIA Mechanical and Shape.
Available Online	Yes

CATIA

Systems Modeling and Execution

CATIA Dymola Behavior Modeling Essentials (DBD)	
Course Code	CAT-en-DBD-F-15-141
Available Release	3DEXPERIENCE R2014x
Duration	16 hours
Course Material	English
Level	Fundamental
Audience	Mechanical and Electrical System Design Engineers
Description	This course will teach you how to model and simulate the dynamic behavior of a multi-engineering system. You will learn how to search, open, and manage the Dymola Behavior Modeling (DBM) libraries. You will also learn how to manage a link between a logical component and a DBM model.
Objectives	<p>Upon completion of this course you will be able to:</p> <ul style="list-style-type: none"> - Search and open the Dymola behavior library - Edit and simulate an existing dynamic behavior model - Create a new dynamic model and an icon for it - Insert the model into a functional or logical component - Simulate the logical component with behavior in the Functional & Logical Design app
Prerequisites	Students attending this course should have completed the Gateway to the 3DEXPERIENCE Platform course. Additionally, they should have completed the CATIA Functional and Logical Design Essentials course.
Available Online	Yes