

# Course Catalog

3DEXPERIENCE R2015X

October 2015



**3DEXPERIENCE**®



# 3DS Learning Solutions | Course Catalog

## CATIA

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**CATIA**

**3DEXPERIENCE Platform**

## Gateway to the 3DEXPERIENCE Platform (GTX)

|                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|-------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Course Code       | CAT-en-GTX-F-15-151                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Available Release | 3DEXPERIENCE R2015x                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Duration          | 8 hours                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Course Material   | English                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Level             | Fundamental                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Audience          | Users of the 3DEXPERIENCE Platform                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Description       | <p>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,...).</p>                                                                                                                                                                                                                           |
| Objectives        | <p>Upon completion of this course you will be able to:</p> <ul style="list-style-type: none"> <li>- Understand the 3DEXPERIENCE interface</li> <li>- Connect to the 3DEXPERIENCE Platform</li> <li>- Access your Dashboard</li> <li>- Use the 6WTags for searching content</li> <li>- Share various documents with other users through 3DSpace</li> <li>- Use standard menus and commands</li> <li>- Explain the functionalities of various apps in the 3DEXPERIENCE Platform</li> <li>- Import new data and export them as 3D XML files</li> <li>- Search for a 3D data using different methods</li> <li>- Explore and open 3D data</li> <li>- Manipulate the tree</li> <li>- Filter data</li> </ul> |
| Prerequisites     | There are no prerequisites for this course                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |

### Gateway to the 3DEXPERIENCE Platform (GTX)

Available Online

Yes

# CATIA

## 3D Modeling

## CATIA Assembly Design Essentials (ASD)

|                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|-------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Course Code       | CAT-en-ASD-F-15-151                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Available Release | 3DEXPERIENCE R2015x                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Duration          | 24 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 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"> <li>- Create a new product and add components to it</li> <li>- Move the components within a product by positioning them using assembly constraints</li> <li>- Modify an existing product structure</li> <li>- Design new parts in the context of a product</li> <li>- Check the mechanical properties of a product and analyze its degrees of freedom</li> <li>- Analyze interferences between parts and perform measurements</li> </ul> |
| Prerequisites     | Students attending this course should have completed the Gateway to the 3DEXPERIENCE Platform course and should be familiar with Part Design in CATIA.                                                                                                                                                                                                                                                                                                                                                                                 |
| Available Online  | Yes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |

### CATIA Generative Shape Design Essentials (GSD)

|                   |                                                                                                                                                                                                                                                                                                                                                                                                  |
|-------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Course Code       | CAT-en-GSD-F-15-151                                                                                                                                                                                                                                                                                                                                                                              |
| Available Release | 3DEXPERIENCE R2015x                                                                                                                                                                                                                                                                                                                                                                              |
| 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"> <li>- Create curves and improve the quality of the imported wireframes</li> <li>- Create surfaces based on the wireframe geometries</li> <li>- Assemble, re-limit and connect the surfaces smoothly to achieve the topology</li> <li>- Analyze the surface quality and heal the defects</li> </ul> |
| 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-15-151                                                                                                                                                                                                                                                                                                                                                                              |
| Available Release | 3DEXPERIENCE R2015x                                                                                                                                                                                                                                                                                                                                                                              |
| 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"> <li>- Create curves and improve the quality of the imported wireframes</li> <li>- Create surfaces based on the wireframe geometries</li> <li>- Assemble, re-limit and connect the surfaces smoothly to achieve the topology</li> <li>- Analyze the surface quality and heal the defects</li> </ul> |
| 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-15-151                                                                                                                                                                                                                                                                                                                                                                                                 |
| Available Release | 3DEXPERIENCE R2015x                                                                                                                                                                                                                                                                                                                                                                                                 |
| 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 also 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"> <li>- Create a conceptual design directly in 3D</li> <li>- Use the hybrid design environment to conceptualize your designs</li> <li>- Work on the structure to create the 3D parts</li> <li>- Navigate through the structure and position the parts</li> <li>- Reuse the existing designs in the 3D models</li> </ul> |
| 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-15-151                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Available Release | 3DEXPERIENCE R2015x                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Duration          | 24 hours                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Course Material   | English                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Level             | Fundamental                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Audience          | Mechanical and Sheet Metal Designers                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Description       | This course will teach you how to create a 3D model using the Part Design app in the 3DEXPERIENCE platform. You will learn how to use different feature-based tools to build a 3D model. You will also learn how to use these tools to review and modify a model.                                                                                                                                                                                        |
| Objectives        | <p>Upon completion of this course you will be able to:</p> <ul style="list-style-type: none"> <li>- Create a new PLM object</li> <li>- Create and constrain 2D sketches</li> <li>- Complete a 3D model using features</li> <li>- Review and edit the features</li> <li>- Re-use the existing features in 3D models</li> <li>- Create the advanced sketch-based and surface features</li> <li>- Create parameters and formulas in the 3D model</li> </ul> |
| Prerequisites     | Students attending this course should have completed the Gateway to the 3DEXPERIENCE Platform course.                                                                                                                                                                                                                                                                                                                                                    |
| Available Online  | Yes                                                                                                                                                                                                                                                                                                                                                                                                                                                      |

## CATIA Shape Healing Essentials (HA1)

|                   |                                                                                                                                                                                                                                                                                                   |
|-------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Course Code       | CAT-en-HA1-F-15-151                                                                                                                                                                                                                                                                               |
| Available Release | 3DEXPERIENCE R2015x                                                                                                                                                                                                                                                                               |
| Duration          | 8 hours                                                                                                                                                                                                                                                                                           |
| Course Material   | English                                                                                                                                                                                                                                                                                           |
| Level             | Fundamental                                                                                                                                                                                                                                                                                       |
| Audience          | Tooling Designers, Mechanical Designers, Surface Designers.                                                                                                                                                                                                                                       |
| Description       | This course introduces you to CATIA Shape Healing'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        | <p>Upon completion of this course you will be able to:</p> <ul style="list-style-type: none"> <li>- Analyze the imported data</li> <li>- Repair the imported data</li> <li>- Compare two versions of a Part</li> <li>- Customize the workbench</li> </ul>                                         |
| Prerequisites     | Students attending this course should have completed the Gateway to the 3DEXPERIENCE Platform and should be familiar with CATIA Surface Design.                                                                                                                                                   |
| Available Online  | Yes                                                                                                                                                                                                                                                                                               |

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

|                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|-------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Course Code       | CAT-en-3DT-F-15-151                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Available Release | 3DEXPERIENCE R2015x                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 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"> <li>- Create new products and parts</li> <li>- Insert a part in a product and position it</li> <li>- Apply materials to parts</li> <li>- Calculate the weight of a product</li> <li>- Insert and complete a drawing</li> <li>- Create a new part version</li> <li>- Replace a part and update a product</li> </ul>                                                                                                                                                                                                                                                                                                      |

### 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-15-151                                                                                                                                                                                                                                                                                                                                                                              |
| Available Release | 3DEXPERIENCE R2015x                                                                                                                                                                                                                                                                                                                                                                              |
| 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"> <li>- Customize the specification tree to display knowledgeware features</li> <li>- Create parametric models</li> <li>- Embed your design knowledge in the models</li> <li>- Automate the design and modification processes</li> <li>- Create design configurations using design tables</li> </ul> |
| Prerequisites     | Students attending this course should have completed the Gateway to the 3DEXPERIENCE Platform course and should be familiar with the Enterprise Knowledge Language (EKL)                                                                                                                                                                                                                         |
| Available Online  | Yes                                                                                                                                                                                                                                                                                                                                                                                              |

### CATIA Engineering Templates Capture Essentials (PKT)

|                   |                                                                                                                                                                                             |
|-------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Course Code       | CAT-en-PKT-F-15-151                                                                                                                                                                         |
| Available Release | 3DEXPERIENCE R2015x                                                                                                                                                                         |
| 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"> <li>- Create engineering templates</li> <li>- Reuse the templates in a new context</li> </ul> |
| Prerequisites     | Students attending this course should have completed the Gateway to the 3DEXPERIENCE Platform. They should also be familiar with Part Design and the Engineering Rules Capture in CATIA.    |
| Available Online  | Yes                                                                                                                                                                                         |

### CATIA Know-how Reuse Essentials (KE1)

|                   |                                                                                                                                                                                                                                                     |
|-------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Course Code       | CAT-en-KE1-F-15-151                                                                                                                                                                                                                                 |
| Available Release | 3DEXPERIENCE R2015x                                                                                                                                                                                                                                 |
| Duration          | 4 hours                                                                                                                                                                                                                                             |
| Course Material   | English                                                                                                                                                                                                                                             |
| Level             | Fundamental                                                                                                                                                                                                                                         |
| Audience          | Mechanical Designers                                                                                                                                                                                                                                |
| Description       | This course will show you how to share corporate knowledge stored in the rule bases and leverage it across the company to ensure design compliance with the established standards. You will also learn to create reports and manage their template. |
| Objectives        | <p>Upon completion of this course, you will be able to:</p> <ul style="list-style-type: none"> <li>- Automate the design modifications</li> <li>- Analyze and create reports</li> </ul>                                                             |
| Prerequisites     | Students attending this course should have completed the Gateway to the 3DEXPERIENCE Platform course.                                                                                                                                               |
| Available Online  | Yes                                                                                                                                                                                                                                                 |

### Introduction to Enterprise Knowledge Language (EKL)

|                   |                                                                                                                                                                                                                                                                               |
|-------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Course Code       | CAT-en-EKL-F-15-151                                                                                                                                                                                                                                                           |
| Available Release | 3DEXPERIENCE R2015x                                                                                                                                                                                                                                                           |
| 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"> <li>- Describe the EKL syntax and its usage</li> <li>- Manipulate CATIA objects through EKL scripts directly</li> <li>- Embed design logic in CATIA models using EKL</li> </ul> |
| 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

## Composer

## CATIA Composer Essentials (CPS)

|                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|-------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Course Code       | CAT-en-CPS-F-15-151                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Available Release | 3DEXPERIENCE R2015x                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Duration          | 20 hours                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Course Material   | English                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Level             | Fundamental                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Audience          | Technical Illustrators, Technical Support / Sales Engineers, Sales Demonstrators                                                                                                                                                                                                                                                                                                                                                                          |
| Description       | This course will teach you how to work with a 3D model using CATIA Composer to capture its views, add annotations and change its rendering style. You will learn how to create technical illustrations, high resolution images and animations. You will also learn how to publish and share the content.                                                                                                                                                  |
| Objectives        | <p>Upon completion of this course you will be able to:</p> <ul style="list-style-type: none"> <li>- Open and navigate a model using CATIA Composer</li> <li>- Capture views of the model</li> <li>- Enhance the model by adding annotations and changing its rendering</li> <li>- Create technical illustrations</li> <li>- Create high resolution images</li> <li>- Create animations</li> <li>- Publish and share the CATIA Composer content</li> </ul> |
| Prerequisites     | Students attending this course should be familiar with the Windows Operating System.                                                                                                                                                                                                                                                                                                                                                                      |
| Available Online  | Yes                                                                                                                                                                                                                                                                                                                                                                                                                                                       |

# CATIA

## Electrical and Electronic Systems

### CATIA Electrical 3D Design Essentials (EHI)

|                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|-------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Course Code       | CAT-en-EHI-F-15-151                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Available Release | 3DEXPERIENCE R2015x                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Duration          | 24 hours                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Course Material   | English                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Level             | Fundamental                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Audience          | Electrical Engineers new to Electrical Physical System Design using the 3DEXPERIENCE Platform.                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Description       | <p>This course will teach you to create electrical physical system in the 3DEXPERIENCE Platform and thereby help you in designing the electrical physical systems. You will work with the catalogs to place the components from the electrical libraries. You will learn the routing of branches for creating electrical branch geometries, managing the electrical geometry content, and routing conductors through the electrical geometry. You will also learn the 3D Master Approach of annotating the electrical physical system.</p> |
| Objectives        | <p>Upon completion of this course you will be able to:</p> <ul style="list-style-type: none"> <li>- Import CATIA V5 data into the 3DEXPERIENCE Platform</li> <li>- Create and use an Electrical Library using Data Setup</li> <li>- Create an Electrical Geometry</li> <li>- Route Conductors through the Electrical Geometry</li> <li>- Annotate the Electrical Physical System using the 3D Master Approach</li> </ul>                                                                                                                   |
| Prerequisites     | <ul style="list-style-type: none"> <li>- Students attending this course should have completed the Gateway to the 3DEXPERIENCE Platform course.</li> <li>- They should also be familiar with Part Design and the Catalog.</li> </ul>                                                                                                                                                                                                                                                                                                        |

### CATIA Electrical 3D Design Essentials (EHI)

Available Online

Yes

# CATIA

## Fluidic Systems

### CATIA Piping and Tubing 3D Design Essentials (PIP)

|                   |                                                                                                                                                                                                                                                                                                                                                                         |
|-------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Course Code       | CAT-en-PIP-F-15-151                                                                                                                                                                                                                                                                                                                                                     |
| Available Release | 3DEXPERIENCE R2015x                                                                                                                                                                                                                                                                                                                                                     |
| Duration          | 12 hours                                                                                                                                                                                                                                                                                                                                                                |
| Course Material   | English                                                                                                                                                                                                                                                                                                                                                                 |
| Level             | Fundamental                                                                                                                                                                                                                                                                                                                                                             |
| Audience          | Piping or Tubing Designers                                                                                                                                                                                                                                                                                                                                              |
| Description       | This course will teach you how to route a pipe or a tube, and place the piping components. You will learn how to detail the design and modify the network. You will also learn how to validate the design and prepare it for manufacturing. The course also features exercises that enable you to practice creating a piping system design.                             |
| Objectives        | <p>Upon completion of this course you will be able to:</p> <ul style="list-style-type: none"> <li>- Route straight pipes or tubes</li> <li>- Position piping or tubing parts</li> <li>- Adjust the design of a piping or a tubing network</li> <li>- Validate the piping and tubing design</li> <li>- Prepare the piping and tubing design for manufacturing</li> </ul> |
| Prerequisites     | Students attending this course should have completed the Gateway to the 3DEXPERIENCE Platform course.                                                                                                                                                                                                                                                                   |
| Available Online  | Yes                                                                                                                                                                                                                                                                                                                                                                     |

## CATIA Piping and Tubing Setup Essentials (PTS)

|                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|-------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Course Code       | CAT-en-PTS-F-15-151                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Available Release | 3DEXPERIENCE R2015x                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Duration          | 24 hours                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Course Material   | English                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Level             | Fundamental                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Audience          | Fluid Systems Solution Administrators                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Description       | <p>This course will teach you how to set up Fluid Systems Resources and create piping components. You will learn how to manage component catalogs, design validation rules, and global naming conventions. You will also learn how to customize the Generative View Style file for drawings and standards for P&amp;ID. The course also features exercises that enable you to practice creating a piping and tubing setup.</p>                                                                                                                                                                                                                                                             |
| Objectives        | <p>Upon completion of this course you will be able to:</p> <ul style="list-style-type: none"> <li>- Set up and administer the 3DEXPERIENCE Fluid Systems Solution</li> <li>- Create and manage Fluid Systems Resources</li> <li>- Build equipments, supports, and components</li> <li>- Reuse the piping standard data for design setup</li> <li>- Create and manage component catalogs</li> <li>- Define the global naming conventions</li> <li>- Create the checks and rules for design validation</li> <li>- Create templates for generating reports</li> <li>- Customize the Generative View Style file for drafting</li> <li>- Define symbols and annotations for P&amp;ID</li> </ul> |
| Prerequisites     | Students attending this course should have completed the Gateway to the 3DEXPERIENCE Platform course.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |

### CATIA Piping and Tubing Setup Essentials (PTS)

Available Online

Yes

# CATIA

## Mechanical Systems

### CATIA 2D Layout for 3D Design Essentials (LO1)

|                   |                                                                                                                                                                                                                                                                    |
|-------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Course Code       | CAT-en-LO1-F-15-151                                                                                                                                                                                                                                                |
| Available Release | 3DEXPERIENCE R2015x                                                                                                                                                                                                                                                |
| 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        | <p>Upon completion of this course you will be able to:</p> <ul style="list-style-type: none"> <li>- Create 2D layout views in a 3D environment</li> <li>- Export 2D geometry into a 3D environment</li> <li>- Create drawings using the 2D layout views</li> </ul> |
| Prerequisites     | Students attending this course should have completed the Gateway to the 3DEXPERIENCE Platform course and should be familiar with CATIA Part and Assembly Design.                                                                                                   |
| Available Online  | Yes                                                                                                                                                                                                                                                                |

### CATIA 3D Annotation Insight Essentials (LFT)

|                   |                                                                                                                                                                                                                                                                                                                                                                                                  |
|-------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Course Code       | CAT-en-LFT-F-15-151                                                                                                                                                                                                                                                                                                                                                                              |
| Available Release | 3DEXPERIENCE R2015x                                                                                                                                                                                                                                                                                                                                                                              |
| 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"> <li>- Access and visualize View, Capture and Annotation review features</li> <li>- Show / Hide individual 3D annotations and all annotations of a given type</li> <li>- Display FTA captures</li> <li>- Remove the FTA Clipping Plane of a capture</li> <li>- Filter the 3D annotations</li> </ul> |
| 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 Tolerancing and Annotation Essentials (FTA)

|                   |                                                                                                                                                                                                                                                            |
|-------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Course Code       | CAT-en-FTA-F-15-151                                                                                                                                                                                                                                        |
| Available Release | 3DEXPERIENCE R2015x                                                                                                                                                                                                                                        |
| Duration          | 12 hours                                                                                                                                                                                                                                                   |
| Course Material   | English                                                                                                                                                                                                                                                    |
| Level             | Fundamental                                                                                                                                                                                                                                                |
| Audience          | 3D Master 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        | <p>Upon completion of this course you will be able to:</p> <ul style="list-style-type: none"> <li>- Add 3D annotations to a part</li> <li>- Manage and position the annotations</li> <li>- Manage the 3D geometry associated to the annotations</li> </ul> |
| Prerequisites     | Students attending this course should have completed the Gateway to the 3DEXPERIENCE Platform course and should be familiar with CATIA Knowledgeware and basic CATIA Solid and Surface Design.                                                             |
| Available Online  | Yes                                                                                                                                                                                                                                                        |

## CATIA Drafting Essentials (GDR)

|                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|-------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Course Code       | CAT-en-GDR-F-15-151                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Available Release | 3DEXPERIENCE R2015x                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 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"> <li>- Configure the Drafting app to meet your specific requirements</li> <li>- Create simple projection views and section views of 3D parts</li> <li>- Position the views on a drawing sheet</li> <li>- Add dimensions and annotations to the views</li> <li>- Finalize the drawing sheet by adding borders and titleblocks</li> <li>- Work with large assemblies</li> <li>- Create interactive views and geometry to prepare 2D drawings</li> </ul> |
| Prerequisites     | <p>Students attending this course should have completed the Gateway to the 3DEXPERIENCE Platform course and they should be familiar with Part Design in CATIA.</p>                                                                                                                                                                                                                                                                                                                                                                                 |
| Available Online  | Yes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |

### CATIA Mechanical Systems Design Essentials (KIM)

|                   |                                                                                                                                                                                                                                                                                                                                  |
|-------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Course Code       | CAT-en-KIM-F-15-151                                                                                                                                                                                                                                                                                                              |
| Available Release | 3DEXPERIENCE R2015x                                                                                                                                                                                                                                                                                                              |
| Duration          | 4 hours                                                                                                                                                                                                                                                                                                                          |
| Course Material   | English                                                                                                                                                                                                                                                                                                                          |
| Level             | Fundamental                                                                                                                                                                                                                                                                                                                      |
| Audience          | Mechanical Designers                                                                                                                                                                                                                                                                                                             |
| 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"> <li>- Create a new mechanism architecture</li> <li>- Include alternative representations to complete the mechanism</li> <li>- Create a new macro mechanism from existing sub-mechanism</li> <li>- Animate the mechanism</li> </ul> |
| Prerequisites     | Students attending this course should have completed the Gateway to the 3DEXPERIENCE Platform and should be familiar with Assembly Design in CATIA.                                                                                                                                                                              |
| Available Online  | Yes                                                                                                                                                                                                                                                                                                                              |

## CATIA Mechanical Systems Experience (KIN)

|                   |                                                                                                                                                                                                                                                                                                                                   |
|-------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Course Code       | CAT-en-KIN-F-15-151                                                                                                                                                                                                                                                                                                               |
| Available Release | 3DEXPERIENCE R2015x                                                                                                                                                                                                                                                                                                               |
| Duration          | 8 hours                                                                                                                                                                                                                                                                                                                           |
| Course Material   | English                                                                                                                                                                                                                                                                                                                           |
| Level             | Fundamental                                                                                                                                                                                                                                                                                                                       |
| Audience          | Mechanical Design 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"> <li>- Create a scenario manually or by using laws</li> <li>- Include measurement and interference analysis</li> <li>- Generate results</li> <li>- Create snapshots for the review</li> <li>- Export the final simulation</li> </ul> |
| Prerequisites     | Students attending this course should have completed the Gateway to the 3DEXPERIENCE Platform and should be familiar with Mechanical Systems Design in CATIA.                                                                                                                                                                     |
| Available Online  | Yes                                                                                                                                                                                                                                                                                                                               |

### CATIA Natural Assembly Essentials (LCP)

|                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|-------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Course Code       | CAT-en-LCP-F-15-151                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Available Release | 3DEXPERIENCE R2015x                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Duration          | 4 hours                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Course Material   | English                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Level             | Fundamental                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Audience          | Mechanical Engineers and Designers, and Design Architects                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Description       | <p>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.</p>                                           |
| Objectives        | <p>Upon completion of this course you will be able to:</p> <ul style="list-style-type: none"> <li>- Explore a product and modify its structure using Natural Assembly</li> <li>- Select the product levels using the Ladder functionality of Natural Assembly</li> <li>- Search for a product and insert it in an existing assembly</li> <li>- Position the parts using constraints</li> <li>- Create a new sub-product from a component's list and use it to complete the product</li> </ul> |
| Prerequisites     | Students attending this course should have completed the Gateway to the 3DEXPERIENCE Platform course.                                                                                                                                                                                                                                                                                                                                                                                         |
| Available Online  | Yes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |

# CATIA

## Multi-Discipline Engineering

### CATIA Bent Part Design Essentials (SMB)

|                   |                                                                                                                                                                                                                                                                                                                                                                         |
|-------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Course Code       | CAT-en-SMB-F-15-151                                                                                                                                                                                                                                                                                                                                                     |
| Available Release | 3DEXPERIENCE R2015x                                                                                                                                                                                                                                                                                                                                                     |
| Duration          | 4 hours                                                                                                                                                                                                                                                                                                                                                                 |
| Course Material   | English                                                                                                                                                                                                                                                                                                                                                                 |
| Level             | Fundamental                                                                                                                                                                                                                                                                                                                                                             |
| Audience          | Mechanical and Structural Design Engineers                                                                                                                                                                                                                                                                                                                              |
| 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"> <li>- Define and modify the sheetmetal parameters</li> <li>- Create a sheetmetal part using the wall and bend features</li> <li>- Manage the folded and unfolded views of parts</li> <li>- Create cutouts, chamfers and corners</li> <li>- Constrain the parts</li> </ul> |
| Prerequisites     | Students attending this course should have completed the Gateway to the 3DEXPERIENCE Platform course.                                                                                                                                                                                                                                                                   |
| Available Online  | Yes                                                                                                                                                                                                                                                                                                                                                                     |

## CATIA Composites Braiding Essentials (CPB)

|                   |                                                                                                                                                                                                                                                                                                                                                              |
|-------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Course Code       | CAT-en-CPB-F-15-151                                                                                                                                                                                                                                                                                                                                          |
| Available Release | 3DEXPERIENCE R2015x                                                                                                                                                                                                                                                                                                                                          |
| Duration          | 4 hours                                                                                                                                                                                                                                                                                                                                                      |
| Course Material   | English                                                                                                                                                                                                                                                                                                                                                      |
| Level             | Fundamental                                                                                                                                                                                                                                                                                                                                                  |
| Audience          | Composites Braiding Designers                                                                                                                                                                                                                                                                                                                                |
| Description       | This course will teach you how to generate a braiding mesh and the braiding surface from the base surface of a composite part. You will learn how to create and modify the plies manually. You will also learn how to analyze the producibility of the braided part and visualize the results of the analysis.                                               |
| Objectives        | <p>Upon completion of this course you will be able to:</p> <ul style="list-style-type: none"> <li>- Understand the opportunities and challenges of the braiding process</li> <li>- Design a composites braided part using the manual approach</li> <li>- Simulate and optimize the braiding process</li> <li>- Generate an accurate braiding mesh</li> </ul> |
| Prerequisites     | Students attending this course should have completed the Gateway to the 3DEXPERIENCE Platform course.                                                                                                                                                                                                                                                        |
| Available Online  | Yes                                                                                                                                                                                                                                                                                                                                                          |

## CATIA Composites Design Essentials (CPE)

|                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|-------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Course Code       | CAT-en-CPE-F-15-151                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Available Release | 3DEXPERIENCE R2015x                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Duration          | 40 hours                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Course Material   | English                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Level             | Fundamental                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Audience          | Composites Designers                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Description       | <p>This course will first teach you how to design simple Composites Parts using a Manual approach. You will then learn how to use a Zone-based approach to complete the preliminary design and then the detailed design. The course will also focus on how the Grid approach can be used for wing, fuselage or wind turbine blade design. You will also learn how to generate plies automatically, use the analysis tools and simulate fiber behavior. Finally, you will learn how to generate exact solids and create composites drawings.</p> |
| Objectives        | <p>Upon completion of this course you will be able to:</p> <ul style="list-style-type: none"> <li>- Define Composites Parameters</li> <li>- Design a Composite Part using the Manual Approach</li> <li>- Design a Composite Part using the Classical and Solid Zone Approach</li> <li>- Design a Composite Part using the Grid Approach</li> <li>- Perform and inspect the Producibility Analysis</li> <li>- Export and import the Ply Design Data</li> <li>- Create a Ply Book</li> </ul>                                                      |
| Prerequisites     | <p>Students attending this course should have completed the Gateway to the 3DEXPERIENCE Platform course and should be familiar with CATIA Drafting.</p>                                                                                                                                                                                                                                                                                                                                                                                         |

### CATIA Composites Design Essentials (CPE)

Available Online

Yes

### CATIA Composites Manufacturing Preparation Essentials (CPM)

|                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|-------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Course Code       | CAT-en-CPM-F-15-151                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Available Release | 3DEXPERIENCE R2015x                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Duration          | 16 hours                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Course Material   | English                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Level             | Fundamental                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Audience          | Composites Manufacturing Designers                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Description       | <p>This course will teach you how to create a manufacturing document from a Composites Engineering design document. You will learn how to modify the Manufacturing Data structure and synchronize the link between the engineering and the manufacturing data. You will also learn how to apply the manufacturing and producibility constraints in the Composites Design Process.</p>                                                                                                         |
| Objectives        | <p>Upon completion of this course you will be able to:</p> <ul style="list-style-type: none"> <li>- Design a Composite Part using the Manual Approach</li> <li>- Generate a Manufacturing Stacking from an Engineering Stacking</li> <li>- Synchronize the link between the Manufacturing and Engineering parts</li> <li>- Perform and inspect the Producibility Analysis</li> <li>- Compute and optimize a Flattening</li> <li>- Export the Ply Data</li> <li>- Create a Ply Book</li> </ul> |
| Prerequisites     | <p>Students attending this course should have completed the Gateway to the 3DEXPERIENCE Platform course and should be familiar with CATIA Drafting.</p>                                                                                                                                                                                                                                                                                                                                       |

### CATIA Composites Manufacturing Preparation Essentials (CPM)

Available Online

Yes

## CATIA Functional Plastic Parts Essentials (FMP)

|                   |                                                                                                                                                                                                                                                                                                                                                                                                                   |
|-------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Course Code       | CAT-en-FMP-F-15-151                                                                                                                                                                                                                                                                                                                                                                                               |
| Available Release | 3DEXPERIENCE R2015x                                                                                                                                                                                                                                                                                                                                                                                               |
| Duration          | 4 hours                                                                                                                                                                                                                                                                                                                                                                                                           |
| Course Material   | English                                                                                                                                                                                                                                                                                                                                                                                                           |
| Level             | Fundamental                                                                                                                                                                                                                                                                                                                                                                                                       |
| Audience          | Plastic part designers and molded part designers                                                                                                                                                                                                                                                                                                                                                                  |
| Description       | <p>This course will teach you how to use the CATIA Functional Plastic Parts app to create molded parts. You will also learn to create a core and a cavity using styling data. You will be able to create a detailed design by adding holes, stiffening ribs, bosses and additional fixtures. You will also be able to modify the design and complete the final part with additional draft and fillet features</p> |
| Objectives        | <p>Upon completion of this course you will be able to:</p> <ul style="list-style-type: none"> <li>- Create a molded, plastic part</li> <li>- Add holes and protected areas</li> <li>- Add ribs and bosses</li> <li>- Reuse existing design templates</li> <li>- Modify the part</li> <li>- Add fillets and drafts</li> </ul>                                                                                      |
| Prerequisites     | <p>Students attending this course should have completed the Gateway to the 3DEXPERIENCE platform course. They should be familiar with the fundamentals of the CATIA Part Design app.</p>                                                                                                                                                                                                                          |
| Available Online  | Yes                                                                                                                                                                                                                                                                                                                                                                                                               |

### CATIA Sheet Metal Design Essentials (SMD)

|                   |                                                                                                                                                                                                                                                                                                                                                  |
|-------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Course Code       | CAT-en-SMD-F-15-151                                                                                                                                                                                                                                                                                                                              |
| Available Release | 3DEXPERIENCE R2015x                                                                                                                                                                                                                                                                                                                              |
| Duration          | 16 hours                                                                                                                                                                                                                                                                                                                                         |
| Course Material   | English                                                                                                                                                                                                                                                                                                                                          |
| Level             | Fundamental                                                                                                                                                                                                                                                                                                                                      |
| Audience          | SheetMetal Designer                                                                                                                                                                                                                                                                                                                              |
| 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"> <li>- Create a sheet metal part using wall and bend features</li> <li>- Create stamped features</li> <li>- Use pre-defined sheet metal parameters</li> <li>- Manage folded and unfolded views</li> <li>- Export a finished flat pattern</li> </ul> |
| Prerequisites     | Students attending this course should have completed the Gateway to the 3DEXPERIENCE Platform course and should be familiar with CATIA Part Design.                                                                                                                                                                                              |
| Available Online  | Yes                                                                                                                                                                                                                                                                                                                                              |

## CATIA Structure Design Essentials (SDD)

|                   |                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|-------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Course Code       | CAT-en-SDD-F-15-151                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Available Release | 3DEXPERIENCE R2015x                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Duration          | 16 hours                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Course Material   | English                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Level             | Fundamental                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Audience          | Structural Designers, Naval Architects                                                                                                                                                                                                                                                                                                                                                                                                      |
| Description       | This course will teach you how to define planning breaks and synchronize basic design with detail design. You will learn how to create the detail design of a ship, including features like stiffeners, collars and brackets. You will also learn how to set up and later customize resources for the design project.                                                                                                                       |
| Objectives        | <p>Upon completion of this course you will be able to:</p> <ul style="list-style-type: none"> <li>- Set up the project resources</li> <li>- Define planning breaks and compute weight</li> <li>- Modify basic design and synchronize with detail design</li> <li>- Add and break stiffeners</li> <li>- Add end cuts, slots and welds</li> <li>- Place collars and brackets</li> <li>- Modify the setup by updating the resources</li> </ul> |
| Prerequisites     | Students attending this course should have completed the Gateway to the 3DEXPERIENCE Platform course. Additionally, they should have also completed the Structure Functional Design Essentials course.                                                                                                                                                                                                                                      |
| Available Online  | Yes                                                                                                                                                                                                                                                                                                                                                                                                                                         |

## CATIA Structure Functional Design Essentials (SFD)

|                   |                                                                                                                                                                                                                                                                                                                                                                                                                                |
|-------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Course Code       | CAT-en-SFD-F-15-151                                                                                                                                                                                                                                                                                                                                                                                                            |
| Available Release | 3DEXPERIENCE R2015x                                                                                                                                                                                                                                                                                                                                                                                                            |
| Duration          | 16 hours                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Course Material   | English                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Level             | Fundamental                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Audience          | Structural Designers, Naval Architects                                                                                                                                                                                                                                                                                                                                                                                         |
| Description       | This course will teach you how to create the functional design of a ship, including features like the hull form, the main panels, stiffeners and openings. You will learn how to use the design to generate a material report and a finite element model. You will also learn how to set up and later customize resources for the design project.                                                                              |
| Objectives        | <p>Upon completion of this course you will be able to:</p> <ul style="list-style-type: none"> <li>- Set up the project resources</li> <li>- Create a hull shell, deck and the bulkhead panels</li> <li>- Place stiffeners on the panels</li> <li>- Create openings and slots</li> <li>- Generate a material report</li> <li>- Generate a finite element model</li> <li>- Modify the setup by updating the resources</li> </ul> |
| Prerequisites     | Students attending this course should have completed the Gateway to the 3DEXPERIENCE Platform course.                                                                                                                                                                                                                                                                                                                          |
| Available Online  | Yes                                                                                                                                                                                                                                                                                                                                                                                                                            |

### CATIA Virtual to Real Shape Morphing Essentials (RSO)

|                   |                                                                                                                                                                                                                                                                                                     |
|-------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Course Code       | CAT-en-RSO-F-15-151                                                                                                                                                                                                                                                                                 |
| Available Release | 3DEXPERIENCE R2015x                                                                                                                                                                                                                                                                                 |
| Duration          | 2 hours                                                                                                                                                                                                                                                                                             |
| Course Material   | English                                                                                                                                                                                                                                                                                             |
| Level             | Fundamental                                                                                                                                                                                                                                                                                         |
| Audience          | Reverse Shape Optimizer                                                                                                                                                                                                                                                                             |
| 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        | <p>Upon completion of this course you will be able to:</p> <ul style="list-style-type: none"> <li>- Morph surfaces with a computed deformation field</li> <li>- Optimize a vector's field from deviation analysis</li> <li>- Filter a vector's field to check the quality of the vectors</li> </ul> |
| Prerequisites     | Students attending this course should have completed the Gateway to the 3DEXPERIENCE Platform course. They should be familiar with the fundamentals of CATIA surface design.                                                                                                                        |
| Available Online  | Yes                                                                                                                                                                                                                                                                                                 |

### CATIA Weld Design Essentials (WDG)

|                   |                                                                                                                                                                                                                        |
|-------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Course Code       | CAT-en-WDG-F-15-151                                                                                                                                                                                                    |
| Available Release | 3DEXPERIENCE R2015x                                                                                                                                                                                                    |
| 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"> <li>- Create and manage welded assemblies</li> <li>- Generate weld reports</li> <li>- Create welding drawings</li> </ul> |
| Prerequisites     | Students attending this course should have completed the Gateway to the 3DEXPERIENCE Platform course and should be familiar with CATIA Assembly Design.                                                                |
| Available Online  | Yes                                                                                                                                                                                                                    |

# CATIA

## Styling

### CATIA Digitized Shape Preparation Essentials (DSE)

|                   |                                                                                                                                                                                                                                                                                                                                 |
|-------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Course Code       | CAT-en-DSE-F-15-151                                                                                                                                                                                                                                                                                                             |
| Available Release | 3DEXPERIENCE R2015x                                                                                                                                                                                                                                                                                                             |
| Duration          | 4 hours                                                                                                                                                                                                                                                                                                                         |
| Course Material   | English                                                                                                                                                                                                                                                                                                                         |
| Level             | Fundamental                                                                                                                                                                                                                                                                                                                     |
| Audience          | Transportation Designers                                                                                                                                                                                                                                                                                                        |
| Description       | This course will teach you how to create a cloud of points and then process those points. You will also learn how to mesh the clouds, improve the mesh characteristics, align the cloud of points and perform deviation analysis.                                                                                               |
| Objectives        | <p>Upon completion of this course, you will be able to:</p> <ul style="list-style-type: none"> <li>- Create a cloud of points</li> <li>- Process points of a cloud</li> <li>- Mesh the clouds</li> <li>- Improve the mesh characteristics</li> <li>- Align the cloud of points</li> <li>- Perform deviation analysis</li> </ul> |
| Prerequisites     | Students attending this course should have completed the Gateway to the 3DEXPERIENCE Platform course.                                                                                                                                                                                                                           |
| Available Online  | Yes                                                                                                                                                                                                                                                                                                                             |

### CATIA FreeStyle Shape Design Essentials (FSS)

|                   |                                                                                                                                                                                                                                                                                                          |
|-------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Course Code       | CAT-en-FSS-F-15-151                                                                                                                                                                                                                                                                                      |
| Available Release | 3DEXPERIENCE R2015x                                                                                                                                                                                                                                                                                      |
| Duration          | 12 hours                                                                                                                                                                                                                                                                                                 |
| Course Material   | English                                                                                                                                                                                                                                                                                                  |
| Level             | Fundamental                                                                                                                                                                                                                                                                                              |
| Audience          | Industrial Designers and Creative Designers                                                                                                                                                                                                                                                              |
| Description       | This course will teach you how to create flawless, styled shapes from scratch using 3D 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        | <p>Upon completion of this course you will be able to:</p> <ul style="list-style-type: none"> <li>- Create styled shapes using digitized data</li> <li>- Create surfaces using the curve-based and surface-based approaches</li> <li>- Analyze and enhance the quality of curves and surfaces</li> </ul> |
| Prerequisites     | Students attending this course should have completed the Gateway to the 3DEXPERIENCE Platform course. Additionally, they should be familiar with the Generative Surface Design in CATIA.                                                                                                                 |
| Available Online  | Yes                                                                                                                                                                                                                                                                                                      |

## CATIA Generative Shape Develop Essentials (DL1)

|                   |                                                                                                                                                                                                                                                                                          |
|-------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Course Code       | CAT-en-DL1-F-15-151                                                                                                                                                                                                                                                                      |
| Available Release | 3DEXPERIENCE R2015x                                                                                                                                                                                                                                                                      |
| Duration          | 2 hours                                                                                                                                                                                                                                                                                  |
| Course Material   | English                                                                                                                                                                                                                                                                                  |
| Level             | Fundamental                                                                                                                                                                                                                                                                              |
| Audience          | Surface Designers                                                                                                                                                                                                                                                                        |
| Description       | This course will teach you how to use CATIA Generative Shape Develop app functionalities to create unfolded surfaces from a ruled surface . You will learn how to develop wires and points onto a revolution surface.                                                                    |
| Objectives        | <p>Upon completion of this course, you will be able to:</p> <ul style="list-style-type: none"> <li>- Create unfolded surfaces from a ruled surface using the CATIA Generative Shape Develop app functionalities</li> <li>- Develop wires and points onto a revolution surface</li> </ul> |
| Prerequisites     | Students attending this course should have completed the Gateway to the 3DEXPERIENCE Platform course. They should also be familiar with Surface Design in CATIA.                                                                                                                         |
| Available Online  | Yes                                                                                                                                                                                                                                                                                      |

### CATIA ICEM Shape Design Essentials (ICM)

|                   |                                                                                                                                                                                                                                                                                                                                                         |
|-------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Course Code       | CAT-en-ICM-F-15-151                                                                                                                                                                                                                                                                                                                                     |
| Available Release | 3DEXPERIENCE R2015x                                                                                                                                                                                                                                                                                                                                     |
| Duration          | 40 hours                                                                                                                                                                                                                                                                                                                                                |
| Course Material   | English                                                                                                                                                                                                                                                                                                                                                 |
| Level             | Fundamental                                                                                                                                                                                                                                                                                                                                             |
| Audience          | Class A Modeler                                                                                                                                                                                                                                                                                                                                         |
| Description       | This course will teach you how to use the 3DEXPERIENCE CATIA ICEM Shape Design app 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        | <p>Upon completion of this course you will be able to:</p> <ul style="list-style-type: none"> <li>- Create robust class A surface models</li> <li>- Create good quality curves</li> <li>- Assemble, re-limit and connect the surfaces</li> <li>- Analyze surface quality</li> <li>- Correct surface defects</li> <li>- Manage surface models</li> </ul> |
| Prerequisites     | Students attending this course should have completed the Gateway to the 3DEXPERIENCE Platform course and should be familiar with surface design.                                                                                                                                                                                                        |
| Available Online  | Yes                                                                                                                                                                                                                                                                                                                                                     |

## CATIA ICEM Shape Morphing Essentials (IEX)

|                   |                                                                                                                                                                                                                                                                       |
|-------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Course Code       | CAT-en-IEX-A-15-151                                                                                                                                                                                                                                                   |
| Available Release | 3DEXPERIENCE R2015x                                                                                                                                                                                                                                                   |
| Duration          | 12 hours                                                                                                                                                                                                                                                              |
| Course Material   | English                                                                                                                                                                                                                                                               |
| Level             | Advanced                                                                                                                                                                                                                                                              |
| Audience          | Class A Expert                                                                                                                                                                                                                                                        |
| Description       | This course will teach you how to use the advanced surface creation options, the advanced analysis tools, and the Expert tools of CATIA Icem Shape Morphing. You will learn how to create high-quality surfaces, and analyze and improve the quality of the surfaces. |
| Objectives        | <p>Upon completion of this course, you will be able to:</p> <ul style="list-style-type: none"> <li>- Create high quality surfaces</li> <li>- Analyze surface quality</li> <li>- Correct surface defects</li> </ul>                                                    |
| Prerequisites     | Students attending this course should have completed the Gateway to the 3DEXPERIENCE Platform course and should be familiar with CATIA ICEM Shape Design, Wireframe and Surface Design.                                                                               |
| Available Online  | Yes                                                                                                                                                                                                                                                                   |

### CATIA Imagine and Shape Essentials (IMA)

|                   |                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|-------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Course Code       | CAT-en-IMA-F-15-151                                                                                                                                                                                                                                                                                                                                                                                                               |
| Available Release | 3DEXPERIENCE R2015x                                                                                                                                                                                                                                                                                                                                                                                                               |
| 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"> <li>- Import and position sketches in CATIA</li> <li>- Create subdivision surfaces using tools specific to the Imagine and Shape app</li> <li>- Modify the style surfaces using Generative Shape Design tools</li> <li>- Create the required environment around a model</li> <li>- Apply materials to the created models</li> </ul> |
| 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 Mechanical Surface Refinement Essentials (SRF)

|                   |                                                                                                                                                                                                                                                                                                                                                |
|-------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Course Code       | CAT-en-SRF-F-15-151                                                                                                                                                                                                                                                                                                                            |
| Available Release | 3DEXPERIENCE R2015x                                                                                                                                                                                                                                                                                                                            |
| Duration          | 2 hours                                                                                                                                                                                                                                                                                                                                        |
| Course Material   | English                                                                                                                                                                                                                                                                                                                                        |
| Level             | Fundamental                                                                                                                                                                                                                                                                                                                                    |
| Audience          | Surface styling designers                                                                                                                                                                                                                                                                                                                      |
| Description       | This course will teach you how to use the CATIA Mechanical Surface Refinement app to modify and refine a mechanical surface in order to improve the surface quality.                                                                                                                                                                           |
| Objectives        | <p>Upon completion of this course you will be able to:</p> <ul style="list-style-type: none"> <li>- Create a preliminary surface design</li> <li>- Analyze the result and identify problem areas</li> <li>- Modify the design using styling surfaces</li> <li>- Refine the design</li> <li>- Complete a high quality surface design</li> </ul> |
| 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 surface design.                                                                                                                                                     |
| Available Online  | Yes                                                                                                                                                                                                                                                                                                                                            |

### CATIA Natural Sketch Essentials (NTS)

|                   |                                                                                                                                                                                                                                                                                                                        |
|-------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Course Code       | CAT-en-NTS-F-15-151                                                                                                                                                                                                                                                                                                    |
| Available Release | 3DEXPERIENCE R2015x                                                                                                                                                                                                                                                                                                    |
| Duration          | 8 hours                                                                                                                                                                                                                                                                                                                |
| Course Material   | English                                                                                                                                                                                                                                                                                                                |
| Level             | Fundamental                                                                                                                                                                                                                                                                                                            |
| Audience          | Creative Designer                                                                                                                                                                                                                                                                                                      |
| Description       | This course will teach you how to Sketch in 3D to express and communicate your creative ideas.                                                                                                                                                                                                                         |
| Objectives        | <p>Upon completion of this course you will be able to:</p> <ul style="list-style-type: none"> <li>- Sketch curves or primitives in 2D and 3D</li> <li>- Trace and refine vector or primitive curves</li> <li>- Sketch on a surface</li> <li>- Import and edit images</li> <li>- Transform curves and images</li> </ul> |
| Prerequisites     | <ul style="list-style-type: none"> <li>- Students attending this course should have completed the Gateway to the 3DEXPERIENCE Platform course.</li> <li>- Additionally, they should be familiar with sketching.</li> </ul>                                                                                             |
| Available Online  | Yes                                                                                                                                                                                                                                                                                                                    |

# CATIA

## Systems Architecture

### CATIA Functional and Logical Design Fundamentals (FLE)

|                   |                                                                                                                                                                                                                                                                                                                                                                                                                         |
|-------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Course Code       | CAT-en-FLE-F-15-151                                                                                                                                                                                                                                                                                                                                                                                                     |
| Available Release | 3DEXPERIENCE R2015x                                                                                                                                                                                                                                                                                                                                                                                                     |
| Duration          | 16 hours                                                                                                                                                                                                                                                                                                                                                                                                                |
| Course Material   | English                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Level             | Fundamental                                                                                                                                                                                                                                                                                                                                                                                                             |
| Audience          | System Architecture Designer                                                                                                                                                                                                                                                                                                                                                                                            |
| Description       | This course will teach you the basic concepts of systems engineering and the RFLP approach. You will learn how to create the Requirement, Functional and Logical architecture. You will also learn how to create and edit the implement relations.                                                                                                                                                                      |
| Objectives        | <p>Upon completion of this course you will be able to:</p> <ul style="list-style-type: none"> <li>- Explain systems engineering and the RFLP approach</li> <li>- Define and formalize data using the Functional &amp; Logical Design app</li> <li>- Create the Implement Relations among the Requirement, Functional and Logical objects</li> <li>- Use the Search and Navigation tools for the RFLP objects</li> </ul> |
| Prerequisites     | Students attending this course should have completed the Gateway to the 3DEXPERIENCE Platform course.                                                                                                                                                                                                                                                                                                                   |
| Available Online  | Yes                                                                                                                                                                                                                                                                                                                                                                                                                     |

# CATIA

## Systems Modeling and Execution

### CATIA Dymola Behavior Modeling Essentials (DBD)

|                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|-------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Course Code       | CAT-en-DBD-F-15-151                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Available Release | 3DEXPERIENCE R2015x                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Duration          | 16 hours                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Course Material   | English                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Level             | Fundamental                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Audience          | Dynamic Systems Designer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 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 the 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"> <li>- Search and open the Dymola behavior library</li> <li>- Edit and simulate an existing dynamic behavior model</li> <li>- Create a new dynamic model and an icon for it</li> <li>- Insert the model into a functional or logical component</li> <li>- Generate the dynamic model from the mechanism created in the assembly</li> <li>- Simulate the logical component with behavior in the Functional &amp; Logical Design app</li> </ul> |
| 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 Fundamentals course.                                                                                                                                                                                                                                                                                                                                |
| Available Online  | Yes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |

# DELMIA

## Industrial Engineering

### DELMIA Machining Validation Essentials (MSG)

|                   |                                                                                                                                                                                                                                                                                                                                             |
|-------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Course Code       | DEL-en-MSG-F-15-151                                                                                                                                                                                                                                                                                                                         |
| Available Release | 3DEXPERIENCE R2015x                                                                                                                                                                                                                                                                                                                         |
| Duration          | 6 hours                                                                                                                                                                                                                                                                                                                                     |
| Course Material   | English                                                                                                                                                                                                                                                                                                                                     |
| Level             | Fundamental                                                                                                                                                                                                                                                                                                                                 |
| Audience          | NC Programmers                                                                                                                                                                                                                                                                                                                              |
| Description       | This course will teach you how to simulate an NC machine using tool path and NC code. You will learn how to create probes in the simulation object environment and use them to detect the clashes that occur during a machine simulation. You will also learn how to perform a fault analysis to detect, analyze and eliminate the clashes. |
| Objectives        | <p>Upon completion of this course you will be able to:</p> <ul style="list-style-type: none"> <li>- Create a Simulation Object</li> <li>- Simulate the machine using toolpath and NC code</li> <li>- Create Probes to detect Clashes during the machine simulation</li> <li>- Analyze and eliminate the Clashes</li> </ul>                  |
| Prerequisites     | Students attending this course should have completed the Gateway to the 3DEXPERIENCE Platform course. Additionally, they should be familiar with the fundamentals of machining and the DELMIA Prismatic Machining app.                                                                                                                      |
| Available Online  | Yes                                                                                                                                                                                                                                                                                                                                         |

### DELMIA Manufacturing Equipment Design Essentials (DBG)

|                   |                                                                                                                                                                                                                                                                                                                                                                                                                              |
|-------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Course Code       | DEL-en-DBG-F-15-151                                                                                                                                                                                                                                                                                                                                                                                                          |
| Available Release | 3DEXPERIENCE R2015x                                                                                                                                                                                                                                                                                                                                                                                                          |
| Duration          | 20 hours                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Course Material   | English                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Level             | Fundamental                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Audience          | Design Engineers, Device Builders                                                                                                                                                                                                                                                                                                                                                                                            |
| Description       | This course will teach you to build engineering connections and kinematic mechanism for a product. These mainly comprise the Robot and the NC Machine. You will learn how to generate device specific resources. You will also learn to define various attributes such as travel limits, home positions, ports and mount points for a device. This aids in the intended functioning of a device in a manufacturing industry. |
| Objectives        | <p>Upon completion of this course you will be able to:</p> <ul style="list-style-type: none"> <li>- Define Kinematics for a device</li> <li>- Generate a device resource using the kinematic mechanisms</li> <li>- Define the Robot and NC Machine attributes</li> </ul>                                                                                                                                                     |
| Prerequisites     | Students attending this course should have completed the Gateway to the 3DEXPERIENCE Platform course. They should also be familiar with kinematic mechanics.                                                                                                                                                                                                                                                                 |
| Available Online  | Yes                                                                                                                                                                                                                                                                                                                                                                                                                          |

## DELMIA Milling Machining Essentials (SMG)

|                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|-------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Course Code       | DEL-en-SMG-F-15-151                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Available Release | 3DEXPERIENCE R2015x                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Duration          | 24 hours                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Course Material   | English                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Level             | Fundamental                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Audience          | Numerical Control (NC) Programmers                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Description       | <p>This course will teach you how to use the common functionalities available in the machining apps of DELMIA. It will also teach you the fundamentals of creating and simulating a tool path. You will learn how to create tool paths for 2- and 2.5-axis machining operations, dedicated operations for machining parts that are designed with surface or solid geometry. You will also learn how to simulate the machines, detect clashes and analyze them. Further, you will teach you how to define the 3-Axis Roughing, Semi-finishing and Finishing operations. Finally, you will also learn how to improve productivity in mould and die machining using the various functionalities of 3-Axis Surface Machining</p> |
| Objectives        | <p>Upon completion of this course you will be able to:</p> <ul style="list-style-type: none"> <li>- Define the infrastructure required for machining</li> <li>- Create tools and tool assemblies</li> <li>- Define prismatic machining operations</li> <li>- Replay and simulate tool paths</li> <li>- Simulate a machine using the simulation object</li> <li>- Generate the Numerical Control (NC) output Create Machining Features</li> <li>- Define 3-Axis Surface Machining operations</li> <li>- Define a Rework Area</li> <li>- Analyze and modify the Tool path</li> </ul>                                                                                                                                           |

### DELMIA Milling Machining Essentials (SMG)

#### Prerequisites

Students attending this course should have completed the Gateway to the 3DEXPERIENCE Platform course. Additionally, they should be familiar with the fundamentals of machining.

#### Available Online

Yes

## DELMIA Mill-Turn Machining Essentials (LMG)

|                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|-------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Course Code       | DEL-en-LMG-F-15-151                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Available Release | 3DEXPERIENCE R2015x                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Duration          | 20 hours                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Course Material   | English                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Level             | Fundamental                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Audience          | NC Programmers                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Description       | <p>This course will teach you how to define various turning operations to machine cylindrical parts. You will learn how to define multi-spindle and multi-turret machines, and use multiple turrets simultaneously to machine a part. You will also learn how to perform the part transfer activity using the multi-spindle machine to complete the machining on both sides of a part without any manual intervention. This course will also teach you how to create milling operations and multi-axis milling operations using the mill-turn machine.</p> |
| Objectives        | <p>Upon completion of this course you will be able to:</p> <ul style="list-style-type: none"> <li>- Define the machining infrastructure</li> <li>- Define the turning operations</li> <li>- Define the milling operations using the multi-slide machine</li> <li>- Define multi-axis machining operations</li> <li>- Define multi-setups and multi-part machining</li> <li>- Replay and simulate the tool paths</li> <li>- Generate the Numerical Control (NC) output</li> </ul>                                                                           |
| Prerequisites     | <p>Students attending this course should have completed the Gateway to the 3DEXPERIENCE Platform course. Additionally, they should be familiar with the fundamentals of machining.</p>                                                                                                                                                                                                                                                                                                                                                                     |

### DELMIA Mill-Turn Machining Essentials (LMG)

Available Online

Yes

### DELMIA Multi-Axis Machining Essentials (MMG)

|                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|-------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Course Code       | DEL-en-MMG-F-15-151                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Available Release | 3DEXPERIENCE R2015x                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Duration          | 32 hours                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Course Material   | English                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Level             | Fundamental                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Audience          | Numerical Control (NC) Programmers                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Description       | <p>This course will teach you how to use the common functionalities available in the machining apps of DELMIA. You will learn how to define and manage NC programs dedicated to machining parts that are designed with surface or solid geometry. This course also 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.</p> |
| Objectives        | <p>Upon completion of this course you will be able to:</p> <ul style="list-style-type: none"> <li>- Define the infrastructure required for machining</li> <li>- Define 3-Axis Surface Machining operations</li> <li>- Define multi-axis finishing and contouring operations</li> <li>- Define multi-pockets machining operations</li> <li>- Define multi-axis helix machining operation</li> </ul>                                                                                     |
| Prerequisites     | <p>Students attending this course should have completed the Gateway to the 3DEXPERIENCE Platform course. Additionally, they should be familiar with the fundamentals of machining.</p>                                                                                                                                                                                                                                                                                                 |
| Available Online  | Yes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |

### DELMIA Plant Layout Design Essentials (MRL)

|                   |                                                                                                                                                                                                                                                                                                                                                                                               |
|-------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Course Code       | DEL-en-MRL-F-15-151                                                                                                                                                                                                                                                                                                                                                                           |
| Available Release | 3DEXPERIENCE R2015x                                                                                                                                                                                                                                                                                                                                                                           |
| Duration          | 6 hours                                                                                                                                                                                                                                                                                                                                                                                       |
| Course Material   | English                                                                                                                                                                                                                                                                                                                                                                                       |
| Level             | Fundamental                                                                                                                                                                                                                                                                                                                                                                                   |
| Audience          | Plant Layout Designer                                                                                                                                                                                                                                                                                                                                                                         |
| Description       | In this course you will learn how to use a 2D drawing to quickly realize 3D layout. You will learn how to select a resource from a catalog of parametric resources. You will also learn how to position the resources in the 3D layout. You will also learn how to move, snap and align the resources.                                                                                        |
| Objectives        | <p>Upon completion of this course you will be able to:</p> <ul style="list-style-type: none"> <li>- Create a layout design for a manufacturing plant.</li> <li>- Define the resource structure.</li> <li>- Use the parametric resources from a catalog.</li> <li>- Position and manipulate resources in the 3D environment.</li> <li>- Define and validate the shop floor layouts.</li> </ul> |
| Prerequisites     | Students attending this course should have completed the Gateway to the 3DEXPERIENCE Platform course.                                                                                                                                                                                                                                                                                         |
| Available Online  | Yes                                                                                                                                                                                                                                                                                                                                                                                           |

### DELMIA Prismatic and Turning Machining Essentials (LMG1)

|                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|-------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Course Code       | DEL-en-LMG1-F-15-151                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Available Release | 3DEXPERIENCE R2015x                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Duration          | 20 hours                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Course Material   | English                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Level             | Fundamental                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Audience          | NC Programmers                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Description       | <p>This course will teach you how to define various turning operations to machine cylindrical parts. You will learn how to define multi-spindle and multi-turret machines, and use multiple turrets simultaneously to machine a part. You will also learn how to perform the part transfer activity using the multi-spindle machine to complete the machining on both sides of a part without any manual intervention. This course will also teach you how to create milling operations using the mill-turn machine.</p> |
| Objectives        | <p>Upon completion of this course you will be able to:</p> <ul style="list-style-type: none"> <li>- Define the machining infrastructure</li> <li>- Define the turning operations</li> <li>- Define the milling operations using the multi-slide machine</li> <li>- Define multi-setups and multi-part machining</li> <li>- Replay and simulate the tool paths</li> <li>- Generate the Numerical Control (NC) output</li> </ul>                                                                                           |
| Prerequisites     | <p>Students attending this course should have completed the Gateway to the 3DEXPERIENCE Platform course. Additionally, they should be familiar with the fundamentals of machining.</p>                                                                                                                                                                                                                                                                                                                                   |

### DELMIA Prismatic and Turning Machining Essentials (LMG1)

Available Online

Yes

### DELMIA Prismatic Machining Advanced (PMG)

|                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|-------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Course Code       | DEL-en-PMG-A-15-151                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Available Release | 3DEXPERIENCE R2015x                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Duration          | 20 hours                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Course Material   | English                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Level             | Advanced                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Audience          | NC Programmers                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Description       | <p>This course will teach you how to manage the NC resources and associate a user representation to a tool. It will also teach you to copy and transform the machining operations to machine similar profiles in a part. You will learn about the automation processes and how to optimize a program using the Auto Sequencing functionality. You will also learn how to save a video simulation result into a 3DPart.</p>                                                                                                                                                                                                                     |
| Objectives        | <p>Upon completion of this course you will be able to:</p> <ul style="list-style-type: none"> <li>- Create the tools catalog to manage tools and tool assemblies</li> <li>- Associate a user representation to a tool assembly</li> <li>- Create and instantiate a Machining Process catalog</li> <li>- Create a Machining Template for Resources and Programming</li> <li>- Optimize a program using the Auto Sequencing functionality</li> <li>- Copy and transform the machining operations to machine similar profiles in a part</li> <li>- Customize a PP Word Table</li> <li>- Save the video simulation result into a 3DPart</li> </ul> |
| Prerequisites     | <p>Students attending this course should have completed the Gateway to the 3DEXPERIENCE Platform course. Additionally, they should be familiar with the Prismatic machining in DELMIA.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                     |

### DELMIA Prismatic Machining Advanced (PMG)

Available Online

Yes

## DELMIA Prismatic Machining Fundamentals (PMG)

|                   |                                                                                                                                                                                                                                                                                                                                                                                                                        |
|-------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Course Code       | DEL-en-PMG-F-15-151                                                                                                                                                                                                                                                                                                                                                                                                    |
| Available Release | 3DEXPERIENCE R2015x                                                                                                                                                                                                                                                                                                                                                                                                    |
| Duration          | 32 hours                                                                                                                                                                                                                                                                                                                                                                                                               |
| Course Material   | English                                                                                                                                                                                                                                                                                                                                                                                                                |
| Level             | Fundamental                                                                                                                                                                                                                                                                                                                                                                                                            |
| Audience          | NC Programmers                                                                                                                                                                                                                                                                                                                                                                                                         |
| Description       | This course will teach you how to use the common functionalities available in the machining apps of DELMIA. It will also teach you the fundamentals of creating and simulating a tool path. You will learn how to create tool paths for 2- and 2.5-axis machining operations. You will also learn how to create probes in the simulation object and how to simulate the machines, detect clashes and analyze them.     |
| Objectives        | <p>Upon completion of this course you will be able to:</p> <ul style="list-style-type: none"> <li>- Define the infrastructure required for machining</li> <li>- Create tools and tool assemblies</li> <li>- Define prismatic machining operations</li> <li>- Replay and simulate tool paths</li> <li>- Simulate a machine using the simulation object</li> <li>- Generate the Numerical Control (NC) output</li> </ul> |
| Prerequisites     | Students attending this course should have completed the Gateway to the 3DEXPERIENCE Platform course. Additionally, they should be familiar with the fundamentals of machining.                                                                                                                                                                                                                                        |
| Available Online  | Yes                                                                                                                                                                                                                                                                                                                                                                                                                    |

### DELMIA Robot Arc Welding Simulation Essentials (AWG1)

|                   |                                                                                                                                                                                                                                                                                                                                       |
|-------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Course Code       | DEL-en-AWG1-F-15-151                                                                                                                                                                                                                                                                                                                  |
| Available Release | 3DEXPERIENCE R2015x                                                                                                                                                                                                                                                                                                                   |
| Duration          | 8 hours                                                                                                                                                                                                                                                                                                                               |
| Course Material   | English                                                                                                                                                                                                                                                                                                                               |
| Level             | Fundamental                                                                                                                                                                                                                                                                                                                           |
| Audience          | Robotics Engineers and Simulation Engineers                                                                                                                                                                                                                                                                                           |
| Description       | This course will teach you how to create robotics arc welding trajectories, tasks and programs in the offline digital environment. You will learn how to create applicative profiles. You will also learn to create seam search trajectory.                                                                                           |
| Objectives        | <p>Upon completion of this course you will be able to:</p> <ul style="list-style-type: none"> <li>- Create an Applicative Profile</li> <li>- Define the parameter for an Arc Welding Profile</li> <li>- Create the Seam Search Trajectory</li> <li>- Create an Arc Welding Task</li> <li>- Create the Position Programming</li> </ul> |
| Prerequisites     | Students attending this course should have completed the Gateway to the 3DEXPERIENCE Platform course. They should also be familiar with Robotic Simulation in DELMIA.                                                                                                                                                                 |
| Available Online  | Yes                                                                                                                                                                                                                                                                                                                                   |

### DELMIA Robot Arc Weld Programming Essentials (AWG2)

|                   |                                                                                                                                                                                                                                                                                                                                                                                      |
|-------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Course Code       | DEL-en-AWG2-F-15-151                                                                                                                                                                                                                                                                                                                                                                 |
| Available Release | 3DEXPERIENCE R2015x                                                                                                                                                                                                                                                                                                                                                                  |
| Duration          | 8 hours                                                                                                                                                                                                                                                                                                                                                                              |
| Course Material   | English                                                                                                                                                                                                                                                                                                                                                                              |
| Level             | Fundamental                                                                                                                                                                                                                                                                                                                                                                          |
| Audience          | Robotics Engineers and Simulation Engineers                                                                                                                                                                                                                                                                                                                                          |
| Description       | <p>This course will teach you how to create robotics arc welding trajectories, tasks and programs in the offline digital environment. You will learn how to create applicative profiles and seam search trajectories. You will also learn how to upload and download robot programs.</p>                                                                                             |
| Objectives        | <p>Upon completion of this course you will be able to:</p> <ul style="list-style-type: none"> <li>- Create an Applicative Profile</li> <li>- Define the parameters for an Arc Welding Profile</li> <li>- Create the Seam Search Trajectory</li> <li>- Create an Arc Welding Task</li> <li>- Create the Position Programming</li> <li>- Upload and download robot programs</li> </ul> |
| Prerequisites     | <p>Students attending this course should have completed the Gateway to the 3DEXPERIENCE Platform course. They should also be familiar with Robotic Simulation in DELMIA.</p>                                                                                                                                                                                                         |
| Available Online  | Yes                                                                                                                                                                                                                                                                                                                                                                                  |

### DELMIA Robot Programming Essentials (OLP)

|                   |                                                                                                                                                                                                                                                                                                                                                    |
|-------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Course Code       | DEL-en-OLP-F-15-151                                                                                                                                                                                                                                                                                                                                |
| Available Release | 3DEXPERIENCE R2015x                                                                                                                                                                                                                                                                                                                                |
| Duration          | 6 hours                                                                                                                                                                                                                                                                                                                                            |
| Course Material   | English                                                                                                                                                                                                                                                                                                                                            |
| Level             | Fundamental                                                                                                                                                                                                                                                                                                                                        |
| Audience          | Robotics Engineers, Offline Programmers                                                                                                                                                                                                                                                                                                            |
| Description       | This course will teach you how to import a robot program and modify it using the Native Robot Language (NRL). You will learn how to use the NRL to teach a robot. You will also learn how to calibrate the different workcell components and the robot signature to compensate for signature inaccuracies.                                         |
| Objectives        | <p>Upon completion of this course you will be able to:</p> <ul style="list-style-type: none"> <li>- Upload and download robot programs</li> <li>- Teach the robot using the Native Robot Language</li> <li>- Import and export the tag group data</li> <li>- Calibrate the workcell components</li> <li>- Calibrate the robot signature</li> </ul> |
| Prerequisites     | Students attending this course should have completed the Gateway to the 3DEXPERIENCE Platform course. Students should be familiar with Robotic Simulation in DELMIA.                                                                                                                                                                               |
| Available Online  | Yes                                                                                                                                                                                                                                                                                                                                                |

## DELMIA Robot Simulation Essentials (WSU)

|                   |                                                                                                                                                                                                                                                                                                                                                                                      |
|-------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Course Code       | DEL-en-WSU-F-15-151                                                                                                                                                                                                                                                                                                                                                                  |
| Available Release | 3DEXPERIENCE R2015x                                                                                                                                                                                                                                                                                                                                                                  |
| Duration          | 12 hours                                                                                                                                                                                                                                                                                                                                                                             |
| Course Material   | English                                                                                                                                                                                                                                                                                                                                                                              |
| Level             | Fundamental                                                                                                                                                                                                                                                                                                                                                                          |
| Audience          | Robotics Engineers and Simulation 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 robot task and how to teach the Robot to perform the task. You will also learn how to create an Input/Output (IO) connection and validate it against the available organizational resources.                        |
| Objectives        | <p>Upon completion of this course you will be able to:</p> <ul style="list-style-type: none"> <li>- Define a composite simulation state</li> <li>- Create and manipulate a tag</li> <li>- Generate a robot task</li> <li>- Teach the robot how to perform a task</li> <li>- Create and validate an Input/Output (IO) connection</li> <li>- Validate a workcell simulation</li> </ul> |
| Prerequisites     | Students attending this course should have completed the Gateway to the 3DEXPERIENCE Platform course. Additionally, they should be familiar with Mechanical Design concepts.                                                                                                                                                                                                         |
| Available Online  | Yes                                                                                                                                                                                                                                                                                                                                                                                  |

### DELMIA Robot Spot Welding Simulation Essentials (SWG1)

|                   |                                                                                                                                                                                                                                                                                                                                 |
|-------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Course Code       | DEL-en-SWG1-F-15-151                                                                                                                                                                                                                                                                                                            |
| Available Release | 3DEXPERIENCE R2015x                                                                                                                                                                                                                                                                                                             |
| Duration          | 8 hours                                                                                                                                                                                                                                                                                                                         |
| Course Material   | English                                                                                                                                                                                                                                                                                                                         |
| Level             | Fundamental                                                                                                                                                                                                                                                                                                                     |
| Audience          | Spot Welding Engineer                                                                                                                                                                                                                                                                                                           |
| Description       | This course will teach you how to create robotics spot welding trajectories and tasks in an offline digital environment. You will learn how to define the spot welding motion parameters using a spot weld profile and to pick the correct weld gun. You will also learn how to teach the robot to perform a spot welding task. |
| Objectives        | <p>Upon completion of this course you will be able to:</p> <ul style="list-style-type: none"> <li>- Analyze the spot welding feasibility</li> <li>- Generate the manufacturing specifications</li> <li>- Generate a spot welding task</li> <li>- Teach the robot to perform the spot welding task</li> </ul>                    |
| Prerequisites     | Students attending this course should have completed the Gateway to the 3DEXPERIENCE Platform course. Students should be familiar with Robotic Simulation in DELMIA.                                                                                                                                                            |
| Available Online  | Yes                                                                                                                                                                                                                                                                                                                             |

## DELMIA Robot Spot Weld Programming (SWG2)

|                   |                                                                                                                                                                                                                                                                                                                                                                                   |
|-------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Course Code       | DEL-en-SWG2-F-15-151                                                                                                                                                                                                                                                                                                                                                              |
| Available Release | 3DEXPERIENCE R2015x                                                                                                                                                                                                                                                                                                                                                               |
| Duration          | 8 hours                                                                                                                                                                                                                                                                                                                                                                           |
| Course Material   | English                                                                                                                                                                                                                                                                                                                                                                           |
| Level             | Fundamental                                                                                                                                                                                                                                                                                                                                                                       |
| Audience          | Spot Welding Engineers                                                                                                                                                                                                                                                                                                                                                            |
| Description       | This course will teach you how to create robotics spot welding trajectories and tasks in an offline digital environment. You will learn how to define the spot welding motion parameters using a spot weld profile and how to pick the correct weld gun. You will also learn how to teach the robot to perform a spot welding task and how to upload and download robot programs. |
| Objectives        | <p>Upon completion of this course you will be able to:</p> <ul style="list-style-type: none"> <li>- Analyze the spot welding feasibility</li> <li>- Generate the manufacturing specifications</li> <li>- Generate a spot welding task</li> <li>- Teach the robot to perform the spot welding task</li> <li>- Upload and download robot programs</li> </ul>                        |
| Prerequisites     | Students attending this course should have completed the Gateway to the 3DEXPERIENCE Platform course. They should also be familiar with Robotic Simulation in DELMIA.                                                                                                                                                                                                             |
| Available Online  | Yes                                                                                                                                                                                                                                                                                                                                                                               |

### DELMIA V5 to 3DEXPERIENCE Machining Transition (PMGT)

|                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|-------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Course Code       | DEL-en-PMGT-F-15-151                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Available Release | 3DEXPERIENCE R2015x                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Duration          | 12 hours                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Course Material   | English                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Level             | Fundamental                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Audience          | NC Programmers                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Description       | <p>This course will teach you what are the differences between the Machining PPR Structure of CATIA V5 and DELMIA 3DEXPERIENCE and how to migrate the CATIA V5 Machining data to DELMIA 3DEXPERIENCE. You will also learn how to create a PPRContext, assign an NC Machine, insert and mount an NC Machine accessory, and then mount the workpiece. This course will also teach you how to define a tool assembly and its advanced parameters. You will learn how to define a Prismatic Machining Operation, replay the toolpath, and generate the NC Output.</p> |
| Objectives        | <p>Upon completion of this course you will be able to:</p> <ul style="list-style-type: none"> <li>- Use the DELMIA 3DEXPERIENCE Machining product to define a Machining Process</li> <li>- Create Tools, Holders, and Tool Assemblies</li> <li>- Define a Machining Operation</li> <li>- Generate a Numerical Control (NC) Output</li> <li>- Store and retrieve a Machining Process from the 3DEXPERIENCE database</li> <li>- Migrate CATIA V5 Machining objects to DELMIA 3DEXPERIENCE</li> </ul>                                                                |
| Prerequisites     | Students attending this course should have completed the Gateway to the 3DEXPERIENCE Platform course.                                                                                                                                                                                                                                                                                                                                                                                                                                                             |

### DELMIA V5 to 3DEXPERIENCE Machining Transition (PMGT)

Additionally, they must be experienced users of the CATIA V5 Machining product

Available Online

Yes

**DELMIA**

**Manufacturing Engineering**

### DELMIA Manufactured Item Definition Essentials (PRD)

|                   |                                                                                                                                                                                                                                                                                                                                                                                      |
|-------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Course Code       | DEL-en-PRD-F-15-151                                                                                                                                                                                                                                                                                                                                                                  |
| Available Release | 3DEXPERIENCE R2015x                                                                                                                                                                                                                                                                                                                                                                  |
| Duration          | 6 hours                                                                                                                                                                                                                                                                                                                                                                              |
| Course Material   | English                                                                                                                                                                                                                                                                                                                                                                              |
| Level             | Fundamental                                                                                                                                                                                                                                                                                                                                                                          |
| Audience          | Mechanical Designers, Process Planners                                                                                                                                                                                                                                                                                                                                               |
| Description       | This course will teach you how to define manufactured items and author assemblies. You will learn how to manage the product to manufactured item assignments. You will also learn how to link the product components to each step of the plan using the simple drag-and-drop technique. Further, you will learn how to create catalogs and reuse a manufacturing assembly structure. |
| Objectives        | <p>Upon completion of this course you will be able to:</p> <ul style="list-style-type: none"> <li>- Manage the Manufactured Item-Product scope</li> <li>- Author manufacturing assemblies</li> <li>- Assign products to manufactured items</li> <li>- Generate manufacturing assemblies from a product structure</li> </ul>                                                          |
| Prerequisites     | Students attending this course should have completed the Gateway to the 3DEXPERIENCE Platform course.                                                                                                                                                                                                                                                                                |
| Available Online  | Yes                                                                                                                                                                                                                                                                                                                                                                                  |

### DELMIA Manufacturing Assembly Evaluation Essentials (FIT)

|                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|-------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Course Code       | DEL-en-FIT-F-15-151                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Available Release | 3DEXPERIENCE R2015x                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Duration          | 6 hours                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Course Material   | English                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Level             | Fundamental                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Audience          | Simulation Engineers, Industrial Engineers and Mechanical Engineers                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Description       | This course will teach you how to create process simulations to perform assembly feasibility studies. You will learn how to identify potential assembly issues and communicate them directly to the product designers in early product development stages. You will also learn how to enhance the simulations to optimize the assembly processes.                                                                                                                                                  |
| Objectives        | <p>Upon completion of this course you will be able to:</p> <ul style="list-style-type: none"> <li>- Determine the assembly feasibility of manufactured parts</li> <li>- Define, simulate and review the entire process to identify potential design issues</li> <li>- Create product assembly simulation to analyze the impact on the shop floor</li> <li>- Perform the assembly sequence analysis</li> <li>- Analyze multiple assembly scenarios to determine the most optimal process</li> </ul> |
| Prerequisites     | Students attending this course should have completed the Gateway to 3DEXPERIENCE Platform course. They should also be familiar with the Mechanical Engineering concepts.                                                                                                                                                                                                                                                                                                                           |

### DELMIA Manufacturing Assembly Evaluation Essentials (FIT)

Available Online

Yes

### DELMIA Manufacturing Equipment Allocation Essentials (MLB)

|                   |                                                                                                                                                                                                                                                                                                                                                                                              |
|-------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Course Code       | DEL-en-MLB-F-15-151                                                                                                                                                                                                                                                                                                                                                                          |
| Available Release | 3DEXPERIENCE R2015x                                                                                                                                                                                                                                                                                                                                                                          |
| Duration          | 8 hours                                                                                                                                                                                                                                                                                                                                                                                      |
| Course Material   | English                                                                                                                                                                                                                                                                                                                                                                                      |
| Level             | Fundamental                                                                                                                                                                                                                                                                                                                                                                                  |
| Audience          | Process Planners, Resource Planners                                                                                                                                                                                                                                                                                                                                                          |
| Description       | This course will teach you how to create and manage resource structure. You will learn how to assign operation to resource by using the different assignment techniques. You will also learn how to balance operations between two or more working resources. Finally, you will learn how to simulate a plant to verify its feasibility.                                                     |
| Objectives        | <p>Upon completion of this course you will be able to:</p> <ul style="list-style-type: none"> <li>- Manage the scope between the Resources and the Systems</li> <li>- Assign Resources to Operations</li> <li>- Plan for capacity using the Resource Utilization Gantt chart</li> <li>- Define the working position and manage the walkway</li> <li>- Simulate the Resource Plant</li> </ul> |
| Prerequisites     | Students attending this course should have completed the Gateway to the 3DEXPERIENCE Platform course. Additionally, they should be familiar with defining the process planning in DELMIA.                                                                                                                                                                                                    |
| Available Online  | Yes                                                                                                                                                                                                                                                                                                                                                                                          |

### DELMIA Manufacturing Process Planning Essentials (MSD)

|                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|-------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Course Code       | DEL-en-MSD-F-15-151                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Available Release | 3DEXPERIENCE R2015x                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Duration          | 8 hours                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Course Material   | English                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Level             | Fundamental                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Audience          | Process Planners                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Description       | This course will teach you how to create and manage the manufacturing system. You will learn how to perform automatic line balancing. You will also learn how to manage the multi-model sessions.                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Objectives        | <p>Upon completion of this course you will be able to:</p> <ul style="list-style-type: none"> <li>- Author system structures and create product flows</li> <li>- Manage system structures and operations</li> <li>- Manage the System-Manufactured Item scope</li> <li>- Assign manufactured items to operations</li> <li>- Generate a system structure from the manufacturing item structure</li> <li>- Author operations and add constraints between operations</li> <li>- Assign manufactured items to operation using the System Assignment Assistant</li> <li>- Analyze the workload and line balancing</li> </ul> |
| Prerequisites     | Students attending this course should have completed the Gateway to the 3DEXPERIENCE Platform course. Additionally, they should be familiar with defining the MBOM structure in DELMIA.                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Available Online  | Yes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |

### DELMIA Manufacturing Work Instructions Essentials (WKD)

|                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|-------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Course Code       | DEL-en-WKD-F-15-151                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Available Release | 3DEXPERIENCE R2015x                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Duration          | 6 hours                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Course Material   | English                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Level             | Fundamental                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Audience          | Simulation Engineers, Process Planners and Manufacturing Engineers                                                                                                                                                                                                                                                                                                                                                                                |
| Description       | This course will teach you how to create textual instructions and 3D annotations to describe a process and the steps involved in it. You will learn how to complement the textual instructions with electronic documents and images. You will also learn how to deliver the work instructions to the team members on the shop floor through a manufacturing execution system, HTML or printed material.                                           |
| Objectives        | <p>Upon completion of this course you will be able to:</p> <ul style="list-style-type: none"> <li>- Create textual and 3D work instructions for an operation</li> <li>- Modify, reorder and delete the work instructions</li> <li>- Enrich the work instructions with documents</li> <li>- Add the work instructions to a catalog and reuse them for other operations</li> <li>- Preview the authored instructions in a 3D environment</li> </ul> |
| Prerequisites     | Students attending this course should have completed the Gateway to 3DEXPERIENCE Platform course.                                                                                                                                                                                                                                                                                                                                                 |
| Available Online  | Yes                                                                                                                                                                                                                                                                                                                                                                                                                                               |

### DELMIA Planning Structure Essentials (PRR)

|                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|-------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Course Code       | DEL-en-PRR-F-15-151                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Available Release | 3DEXPERIENCE R2015x                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Duration          | 12 hours                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Course Material   | English                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Level             | Fundamental                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Audience          | Mechanical Designers and Process Planners                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Description       | This course will teach you how to define and manage the manufactured product structure, routings and resource allocation in one single and simple interface. You will learn how to perform line balancing across stations and lines. You will also learn how to detect issues early in the process plan using 3D validation.                                                                                                                                                                      |
| Objectives        | <p>Upon completion of this course you will be able to:</p> <ul style="list-style-type: none"> <li>- Define a manufacturing bill of materials</li> <li>- Reuse the manufacturing bill of materials template</li> <li>- Define the related product scope</li> <li>- Create sub-assemblies</li> <li>- Assign parts to sub-assemblies</li> <li>- Define the logical view of your production line</li> <li>- Assign resources to operations</li> <li>- Validate the assembly sequence in 3D</li> </ul> |
| Prerequisites     | Students attending this course should have completed the Gateway to the 3DEXPERIENCE Platform course.                                                                                                                                                                                                                                                                                                                                                                                             |
| Available Online  | Yes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |

# ENOVIA

## Application Lifecycle Services

### ENOVIA Collaboration and Approvals Essentials (BUPS)

|                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|-------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Course Code       | ENOV-en-BUPS-F-15-151                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Available Release | 3DEXPERIENCE R2015x                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Duration          | 8 hours                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Course Material   | English                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Level             | Fundamental                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Audience          | 3DEXPERIENCE Platform Users                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Description       | <p>This course will teach you the common functionalities used throughout the ENOVIA apps, which enable you to manage your content as well as collaborate with other members in a team. You will learn how to create workspaces for managing your business related components, such as folders, members and tasks. You will also learn how to create various workflows using routes, subscribe to your task related events, and report issues for objects. Further, you will learn to create and version your documents, while maintaining a record for all its revisions.</p> |
| Objectives        | <p>Upon completion of this course you will be able to:</p> <ul style="list-style-type: none"> <li>- Explain the features of the Collaboration and Approvals app</li> <li>- Illustrate the structure of ENOVIA Business Process Services</li> <li>- Create and manage your folders</li> <li>- Create workflows</li> <li>- Identify and manage your assigned tasks</li> <li>- Subscribe to various objects and events</li> <li>- Report and resolve issues in objects</li> <li>- Create, track and organize your documents</li> </ul>                                           |

### ENOVIA Collaboration and Approvals Essentials (BUPS)

#### Prerequisites

Students attending this course should have completed the Gateway to the 3DEXPERIENCE Platform course.

#### Available Online

Yes

### ENOVIA Collaboration for Microsoft Essentials (COMI)

|                   |                                                                                                                                                                                                                                                   |
|-------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Course Code       | ENOV-en-COMI-F-15-151                                                                                                                                                                                                                             |
| Available Release | 3DEXPERIENCE R2015x                                                                                                                                                                                                                               |
| Duration          | 4 hours                                                                                                                                                                                                                                           |
| Course Material   | English                                                                                                                                                                                                                                           |
| Level             | Fundamental                                                                                                                                                                                                                                       |
| Audience          | Project Managers, Design Engineers, Reviewers and Technical Writers.                                                                                                                                                                              |
| Description       | This course will teach you how to use the ENOVIA Collaboration for Microsoft App to access and manage the documents in the ENOVIA database using the Microsoft applications.                                                                      |
| Objectives        | <p>Upon completion of this course you will be able to:</p> <ul style="list-style-type: none"> <li>- Access documents from the ENOVIA database using the Microsoft applications</li> <li>- Create, manage and synchronize the documents</li> </ul> |
| Prerequisites     | Students attending this course should have completed the Gateway to the 3DEXPERIENCE Platform and should be familiar with Collaboration and Approvals in ENOVIA.                                                                                  |
| Available Online  | Yes                                                                                                                                                                                                                                               |

### ENOVIA Collaborative Lifecycle Management Essentials (LIIN)

|                   |                                                                                                                                                                                                                                                                                                                                                                               |
|-------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Course Code       | ENOV-en-LIIN-F-15-151                                                                                                                                                                                                                                                                                                                                                         |
| Available Release | 3DEXPERIENCE R2015x                                                                                                                                                                                                                                                                                                                                                           |
| Duration          | 4 hours                                                                                                                                                                                                                                                                                                                                                                       |
| Course Material   | English                                                                                                                                                                                                                                                                                                                                                                       |
| Level             | Fundamental                                                                                                                                                                                                                                                                                                                                                                   |
| Audience          | CAD Designers, Engineers in charge of product development                                                                                                                                                                                                                                                                                                                     |
| Description       | Integrated and built on a common architecture with 3DEXperience Platform, Collaborative Lifecycle Management Essentials helps medium to large companies take more innovative products to market faster by providing collaborative Virtual Product Management of complex product, process and resource information—from marketing and design to manufacturing and maintenance. |
| Objectives        | <p>Upon completion of this course you will be able to:</p> <ul style="list-style-type: none"> <li>- Create a new product structure</li> <li>- Manage the changes in a product structure</li> <li>- Collaborate with Engineering BOM</li> <li>- Manage documents</li> </ul>                                                                                                    |
| Prerequisites     | Students attending this course should have completed the Gateway to the 3DEXPERIENCE Platform and should be familiar with Part Design and Assembly Design in CATIA.                                                                                                                                                                                                           |
| Available Online  | Yes                                                                                                                                                                                                                                                                                                                                                                           |

### ENOVIA Exchanges Management Essentials (EXCH)

|                   |                                                                                                                                                                                                                                               |
|-------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Course Code       | ENOV-en-EXCH-F-15-151                                                                                                                                                                                                                         |
| Available Release | 3DEXPERIENCE R2015x                                                                                                                                                                                                                           |
| Duration          | 2 hours                                                                                                                                                                                                                                       |
| Course Material   | English                                                                                                                                                                                                                                       |
| Level             | Fundamental                                                                                                                                                                                                                                   |
| Audience          | CAD Designers, Platform Contributor.                                                                                                                                                                                                          |
| Description       | This course will teach you how to use the import / export tools in 3DEXPERIENCE (FBDI). You will also manage the mastership between V5 files and 3DEXPERIENCE files.                                                                          |
| Objectives        | Upon completion of this course you will be able to: <ul style="list-style-type: none"> <li>- Import and Export 3DXML files.</li> <li>- Import and Export CATIA V5 files.</li> <li>- Manage the Mastership of the imported objects.</li> </ul> |
| Prerequisites     | Students attending this course should have completed the Gateway to the 3DEXPERIENCE Platform course.                                                                                                                                         |
| Available Online  | Yes                                                                                                                                                                                                                                           |

### ENOVIA X-CAD Design Management Essentials (XCAD)

|                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|-------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Course Code       | ENOV-en-XCAD-F-15-151                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Available Release | 3DEXPERIENCE R2015x                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Duration          | 8 hours                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Course Material   | English                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Level             | Fundamental                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Audience          | Design Engineers, Drafting Engineers and Manufacturing Engineers, Business Administrators and System Administrators                                                                                                                                                                                                                                                                                                                                       |
| Description       | This course will teach you how to use the XCAD Design Management app for the CATIA V5 Connector. You will learn how to share and manage information related to engineering design and engineering change from CATIA V5 and ENOVIA. You will also learn how to view the details of CAD objects, search for data, perform lifecycle operations, and create and synchronize the engineering bill of materials.                                               |
| Objectives        | <p>Upon completion of this course you will be able to:</p> <ul style="list-style-type: none"> <li>- Explore the XCAD Design app</li> <li>- Initialize and work in the Embedded Integration mode</li> <li>- Store and retrieve the CATIA V5 files in ENOVIA</li> <li>- Create new components, drawings and Bill of Materials (BOM)</li> <li>- Review and release the CAD models</li> <li>- Modify the existing designs and create new revisions</li> </ul> |
| Prerequisites     | Students attending this course should have completed the Gateway to the 3DEXPERIENCE Platform and                                                                                                                                                                                                                                                                                                                                                         |

### ENOVIA X-CAD Design Management Essentials (XCAD)

should be familiar with Collaboration and Approvals in ENOVIA and with CATIA V5 fundamentals.

Available Online

Yes

# ENOVIA

## Global Product Development

### ENOVIA Design Review Essentials (REEV)

|                   |                                                                                                                                                                                                                                                                                          |
|-------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Course Code       | ENOV-en-REEV-F-15-151                                                                                                                                                                                                                                                                    |
| Available Release | 3DEXPERIENCE R2015x                                                                                                                                                                                                                                                                      |
| Duration          | 4 hours                                                                                                                                                                                                                                                                                  |
| Course Material   | English                                                                                                                                                                                                                                                                                  |
| Level             | Fundamental                                                                                                                                                                                                                                                                              |
| Audience          | Mechanical Designers                                                                                                                                                                                                                                                                     |
| Description       | This course will teach you how to create a design review. You will learn how to create different slides for various positions of an assembly to create exploded views. You will also learn how to create sections and measures, and export them as parts or drawings.                    |
| Objectives        | <p>Upon completion of this course you will be able to:</p> <ul style="list-style-type: none"> <li>- Create a design review and add markups to it</li> <li>- Create slides and add markers</li> <li>- Create sections and measures</li> <li>- Export the sections and measures</li> </ul> |
| Prerequisites     | Students attending this course should have completed the Gateway to the 3DEXPERIENCE Platform course.                                                                                                                                                                                    |
| Available Online  | Yes                                                                                                                                                                                                                                                                                      |

### ENOVIA Engineering BOM Management Essentials (ENBO)

|                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|-------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Course Code       | ENOV-en-ENBO-F-15-151                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Available Release | 3DEXPERIENCE R2015x                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Duration          | 8 hours                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Course Material   | English                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Level             | Fundamental                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Audience          | Design Engineers and Manufacturing Engineers                                                                                                                                                                                                                                                                                                                                                                                                          |
| Description       | <p>This course will teach you how to use ENOVIA Engineering BOM Management to manage the engineering change process. You will learn how to create parts and specifications and raise Change Requests on the parts and specifications. You will also learn to create Change Orders to address the design modifications raised in Change Requests. Further, you will learn how to create part revisions and generate various types of reports.</p>      |
| Objectives        | <p>Upon completion of this course you will be able to:</p> <ul style="list-style-type: none"> <li>- Create new parts and specifications</li> <li>- Create and edit Bill of Materials</li> <li>- Create a Change Request to make the changes in a part or a specification</li> <li>- Create a Change Order for a new product</li> <li>- Review and release the new product</li> <li>- Modify the existing product and create a new revision</li> </ul> |
| Prerequisites     | <p>Students attending this course should have completed the Gateway to the 3DEXPERIENCE Platform and should be familiar with Collaboration and Approvals in ENOVIA.</p>                                                                                                                                                                                                                                                                               |

### ENOVIA Engineering BOM Management Essentials (ENBO)

Available Online

Yes

### ENOVIA On-The-Go Essentials (ONGO)

|                   |                                                                                                                                                                                                                  |
|-------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Course Code       | ENOV-en-ONGO-F-15-151                                                                                                                                                                                            |
| Available Release | 3DEXPERIENCE R2015x                                                                                                                                                                                              |
| Duration          | 1 hours                                                                                                                                                                                                          |
| Course Material   | English                                                                                                                                                                                                          |
| Level             | Fundamental                                                                                                                                                                                                      |
| Audience          | Users of the 3DEXPERIENCE Platform                                                                                                                                                                               |
| Description       | This course will teach you how you can work in the offline mode in the 3DEXPERIENCE platform.                                                                                                                    |
| Objectives        | <p>Upon completion of this course you will be able to:</p> <ul style="list-style-type: none"> <li>- Work in the offline mode</li> <li>- Return to the online Mode</li> <li>- Restore the last session</li> </ul> |
| Prerequisites     | Students taking this course should be familiar with the 3DEXPERIENCE Platform or are advised to follow the Gateway to the 3DEXPERIENCE Platform course                                                           |
| Available Online  | Yes                                                                                                                                                                                                              |

### ENOVIA Variant Management Essentials : Product Architect (VAMAPDA)

|                   |                                                                                                                                                                                                                                                                                                                                                                                    |
|-------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Course Code       | ENOV-en-VAMAPDA-F-15-151                                                                                                                                                                                                                                                                                                                                                           |
| Available Release | 3DEXPERIENCE R2015x                                                                                                                                                                                                                                                                                                                                                                |
| Duration          | 16 hours                                                                                                                                                                                                                                                                                                                                                                           |
| Course Material   | English                                                                                                                                                                                                                                                                                                                                                                            |
| Level             | Fundamental                                                                                                                                                                                                                                                                                                                                                                        |
| Audience          | Product Managers, Product Architects, System Engineers, Design Engineers and Marketing Managers                                                                                                                                                                                                                                                                                    |
| Description       | This course will teach you how to use the Variant Management app for creating and managing product configurations. You will learn how to create product portfolios and manage the product variability using various configuration features and rules. You will also learn how to generate a Bill of Materials and associate its parts with the features of a product.              |
| Objectives        | <p>Upon completion of this course you will be able to:</p> <ul style="list-style-type: none"> <li>- Create the product structure</li> <li>- Define product portfolios based on product roadmaps</li> <li>- Create and manage product configurations and design variants</li> <li>- Use Engineering Changes (ECs) to track and release features</li> <li>- Generate BOMs</li> </ul> |
| Prerequisites     | Students attending this course should have completed the Gateway to the 3DEXPERIENCE Platform and should be familiar with Collaboration and Approvals in ENOVIA.                                                                                                                                                                                                                   |
| Available Online  | Yes                                                                                                                                                                                                                                                                                                                                                                                |

### ENOVIA Variant Management Essentials : Product Manager (VAMAPDM)

|                   |                                                                                                                                                                                                                                                                                          |
|-------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Course Code       | ENOV-en-VAMAPDM-F-15-151                                                                                                                                                                                                                                                                 |
| Available Release | 3DEXPERIENCE R2015x                                                                                                                                                                                                                                                                      |
| Duration          | 8 hours                                                                                                                                                                                                                                                                                  |
| Course Material   | English                                                                                                                                                                                                                                                                                  |
| Level             | Fundamental                                                                                                                                                                                                                                                                              |
| Audience          | Product Managers and Marketing Managers                                                                                                                                                                                                                                                  |
| Description       | This course will teach you how to use the Variant Management app for creating and managing product configurations. You will learn how to create product portfolios and manage the product variability using various configuration features and rules.                                    |
| Objectives        | <p>Upon completion of this course you will be able to:</p> <ul style="list-style-type: none"> <li>- Create the product structure</li> <li>- Define product portfolios based on product roadmaps</li> <li>- Create features and rules</li> <li>- Create product configurations</li> </ul> |
| Prerequisites     | Students attending this course should have completed the Gateway to the 3DEXPERIENCE Platform and should be familiar with Collaboration and Approvals in ENOVIA.                                                                                                                         |
| Available Online  | Yes                                                                                                                                                                                                                                                                                      |

# ENOVIA

## Installation and Administration

### 3DEXPERIENCE Open Architecture Essentials (3DXA)

|                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|-------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Course Code       | ENOV-en-3DXA-F-15-151                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Available Release | 3DEXPERIENCE R2015x                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Duration          | 4 hours                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Course Material   | English                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Level             | Fundamental                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Audience          | System Administrators and Application Architects                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Description       | This course is intended to teach Administrators and Architects about the 3DEXPERIENCE platform Architecture, Components and Capabilities. The main goal is to learn about the 3DEXPERIENCE Platform Logical, Storage, Software, Deployment and Network Architecture as well as security features.                                                                                                                                                                                                   |
| Objectives        | <p>Upon completion of this course you will be able to:</p> <ul style="list-style-type: none"> <li>- Describe the 3DEXPERIENCE Platform architecture and its major components</li> <li>- Describe the Data Types in the 3DEXPERIENCE Platform</li> <li>- Describe the Software Stack for the 3DEXPERIENCE Platform</li> <li>- Describe the secure infrastructure provided by the 3DEXPERIENCE Platform</li> <li>- Understand the Collaboration Modes offered by the 3DEXPERIENCE Platform</li> </ul> |
| Prerequisites     | Students attending this course should have completed the Gateway to the 3DEXPERIENCE Platform course.                                                                                                                                                                                                                                                                                                                                                                                               |
| Available Online  | Yes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |

## 3DEXPERIENCE Open Cloud Essentials (PCS)

|                   |                                                                                                                                                                                                                                                                                                                                                                          |
|-------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Course Code       | ENOV-en-PCS-F-15-151                                                                                                                                                                                                                                                                                                                                                     |
| Available Release | 3DEXPERIENCE R2015x                                                                                                                                                                                                                                                                                                                                                      |
| Duration          | 4 hours                                                                                                                                                                                                                                                                                                                                                                  |
| Course Material   | English                                                                                                                                                                                                                                                                                                                                                                  |
| Level             | Fundamental                                                                                                                                                                                                                                                                                                                                                              |
| Audience          | Any cloud administrator.                                                                                                                                                                                                                                                                                                                                                 |
| Description       | <p>This course will guide the user through the main items of the administration of a cloud environment. It covers the initialization of the environment, with the invitation of users and the management of roles. Then this lesson explains how to manage the various applications of the 3DEXPERIENCE Platform: 3DDashboard, 3DSwym, 3DSearch, 6WTags and 3DSpace.</p> |
| Objectives        | <p>Upon completion of this course you will be able to:</p> <ul style="list-style-type: none"> <li>- Learn how to administrate a cloud environment.</li> <li>- Invite users.</li> <li>- Assign licenses.</li> <li>- Create dashboards.</li> <li>- Manage communities and collaborative spaces.</li> </ul>                                                                 |
| Prerequisites     | None.                                                                                                                                                                                                                                                                                                                                                                    |
| Available Online  | Yes                                                                                                                                                                                                                                                                                                                                                                      |

### 3DEXPERIENCE Platform Services (TMO5)

|                   |                                                                                                                                                                                                                            |
|-------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Course Code       | ENOV-en-TMO5-F-15-151                                                                                                                                                                                                      |
| Available Release | 3DEXPERIENCE R2015x                                                                                                                                                                                                        |
| Duration          | 24 hours                                                                                                                                                                                                                   |
| Course Material   | English                                                                                                                                                                                                                    |
| Level             | Fundamental                                                                                                                                                                                                                |
| Audience          | 3DEXPERIENCE Platform PLM-Administrators and Implementers, Companies who would like to use the widespread configuration capabilities of the 3DEXPERIENCE platform.                                                         |
| Description       | This course is intended to teach Administrators and Implementers about the 3DEXPERIENCE platform tools, interfaces as well configure services. The main goal is to learn Out-of-the-box functions and how to customize it. |
| Objectives        | Upon completion of this course you will be able to: <ul style="list-style-type: none"> <li>- Create new attributes and subtypes and deploy them into the 3DEXPERIENCE platform.</li> </ul>                                 |
| Prerequisites     | Students attending this course should have completed the Gateway to the 3DEXPERIENCE Platform and should be familiar with Studio Matrix Navigator, Business Modeler Studio and Studio MQL in ENOVIA.                       |
| Available Online  | Yes                                                                                                                                                                                                                        |

### Data Model Development: Studio Business Modeler (TMO3)

|                   |                                                                                                                                                                                                                                                                                                                                 |
|-------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Course Code       | ENOV-en-TMO3-F-15-151                                                                                                                                                                                                                                                                                                           |
| Available Release | 3DEXPERIENCE R2015x                                                                                                                                                                                                                                                                                                             |
| Duration          | 16 hours                                                                                                                                                                                                                                                                                                                        |
| Course Material   | English                                                                                                                                                                                                                                                                                                                         |
| Level             | Fundamental                                                                                                                                                                                                                                                                                                                     |
| Audience          | 3DEXPERIENCE Platform PLM-Administrators and Implementers                                                                                                                                                                                                                                                                       |
| Description       | This course is intended to teach Administrators how to work with the 3DEXPERIENCE Studio Business applications and how to define the new schema or modify existing schema. The main goal is to learn how to use existing capabilities of the 3DEXPERIENCE platform to perform business administrator tasks.                     |
| Objectives        | <p>Upon completion of this course you will be able to:</p> <ul style="list-style-type: none"> <li>- Describe the basics of a 3DEXPERIENCE Platform schema</li> <li>- Understand the AEF Schema to customize the data model</li> <li>- Design and implement a 3DEXPERIENCE Platform schema using the Business Modeler</li> </ul> |
| Prerequisites     | Students attending this course should have completed the Gateway to the 3DEXPERIENCE Platform and should be familiar with Studio Matrix Navigator in ENOVIA.                                                                                                                                                                    |
| Available Online  | Yes                                                                                                                                                                                                                                                                                                                             |

### Data Model Development: Studio Matrix Navigator (TMO1)

|                   |                                                                                                                                                                                                                                                                                                                                                              |
|-------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Course Code       | ENOV-en-TMO1-F-15-151                                                                                                                                                                                                                                                                                                                                        |
| Available Release | 3DEXPERIENCE R2015x                                                                                                                                                                                                                                                                                                                                          |
| Duration          | 6 hours                                                                                                                                                                                                                                                                                                                                                      |
| Course Material   | English                                                                                                                                                                                                                                                                                                                                                      |
| Level             | Fundamental                                                                                                                                                                                                                                                                                                                                                  |
| Audience          | 3DEXPERIENCE Platform PLM-Administrators and Implementers                                                                                                                                                                                                                                                                                                    |
| Description       | This course is intended to teach administrators how to work with 3DEXPERIENCE Open Studio applications, how to define the new business model or modify existing schema. The main goal is to learn how to use existing capabilities of the 3DEXPERIENCE platform to perform business and system administrator tasks.                                          |
| Objectives        | <p>Upon completion of this course you will be able to:</p> <ul style="list-style-type: none"> <li>- Describe the 3DEXPERIENCE Platform Architecture and its components.</li> <li>- Explain the 3DEXPERIENCE Platform Schema and its Data Model.</li> <li>- Use the 3DEXPERIENCE Open Studio Matrix Navigator to create and edit Business Objects.</li> </ul> |
| Prerequisites     | Students attending this course should have completed the Gateway to the 3DEXPERIENCE Platform course.                                                                                                                                                                                                                                                        |
| Available Online  | Yes                                                                                                                                                                                                                                                                                                                                                          |

### Data Model Development: Studio MQL (TMO4)

|                   |                                                                                                                                                                                                                                                                                                        |
|-------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Course Code       | ENOV-en-TMO4-F-15-151                                                                                                                                                                                                                                                                                  |
| Available Release | 3DEXPERIENCE R2015x                                                                                                                                                                                                                                                                                    |
| Duration          | 8 hours                                                                                                                                                                                                                                                                                                |
| Course Material   | English                                                                                                                                                                                                                                                                                                |
| Level             | Fundamental                                                                                                                                                                                                                                                                                            |
| Audience          | 3DEXPERIENCE Platform Business Administrators, System Administrators and Implementers                                                                                                                                                                                                                  |
| Description       | This course is intended to teach administrators and developers how to test, manage, and modify the data model via MQL (Matrix Query Language). They will also learn how to extract / import data and work with scripts.                                                                                |
| Objectives        | <p>Upon completion of this course you will be able to:</p> <ul style="list-style-type: none"> <li>- Understand basic MQL commands</li> <li>- Modify the schema</li> <li>- Create, modify, delete and query business objects</li> <li>- Export and import data</li> <li>- Create MQL scripts</li> </ul> |
| Prerequisites     | Students attending this course should have completed the Gateway to the 3DEXPERIENCE Platform and should be familiar with Studio Matrix Navigator and Business Modeler Studio in ENOVIA.                                                                                                               |
| Available Online  | Yes                                                                                                                                                                                                                                                                                                    |

### One Click Deployment Essentials (OCD)

|                   |                                                                                                                                                                                                                                                                                                                                                                                                                          |
|-------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Course Code       | ENOV-en-OCD-F-15-151                                                                                                                                                                                                                                                                                                                                                                                                     |
| Available Release | 3DEXPERIENCE R2015x                                                                                                                                                                                                                                                                                                                                                                                                      |
| Duration          | 16 hours                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Course Material   | English                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Level             | Fundamental                                                                                                                                                                                                                                                                                                                                                                                                              |
| Audience          | 3DEXPERIENCE Platform PLM-Administrators and Implementers                                                                                                                                                                                                                                                                                                                                                                |
| Description       | This course will show the available customization functions of 3DEXPERIENCE Platform via Web Administration console. It will describe the One-Click Deployment Experience mechanisms for customers who would like to use the OOTB functionality and predefined Schema as much as possible, without deeper customization needs.                                                                                           |
| Objectives        | <p>Upon completion of this course you will be able to:</p> <ul style="list-style-type: none"> <li>- Create collaborative spaces, users and assign required access rights to different users</li> <li>- Explore the lifecycle states transition mechanisms available in the One-Click Deployment Experience</li> <li>- Configure the 3DEXPERIENCE Platform to add additional features as per your requirements</li> </ul> |
| Prerequisites     | Students attending this course should have completed the Gateway to the 3DEXPERIENCE Platform course. They should be familiar with the basic CATIA design knowledge.                                                                                                                                                                                                                                                     |
| Available Online  | Yes                                                                                                                                                                                                                                                                                                                                                                                                                      |

# ENOVIA

## IP Classification and Protection

### ENOVIA Classify and Reuse Essentials (CLRE)

|                   |                                                                                                                                                                                                                                                  |
|-------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Course Code       | ENOV-en-CLRE-F-15-151                                                                                                                                                                                                                            |
| Available Release | 3DEXPERIENCE R2015x                                                                                                                                                                                                                              |
| Duration          | 2 hours                                                                                                                                                                                                                                          |
| Course Material   | English                                                                                                                                                                                                                                          |
| Level             | Fundamental                                                                                                                                                                                                                                      |
| Audience          | 3DEXPERIENCE Platform Users.                                                                                                                                                                                                                     |
| Description       | This course will teach you how to use the ENOVIA Classify and Reuse App to search and view different types of libraries and the objects hierarchy. You will also learn how to manage the objects using these libraries.                          |
| Objectives        | <p>Upon completion of this course you will be able to:</p> <ul style="list-style-type: none"> <li>- Search and view different types of Libraries and their related hierarchy.</li> <li>- Search and view General Classes and Folders.</li> </ul> |
| Prerequisites     | Students attending this course should have completed the Gateway to the 3DEXPERIENCE Platform and should be familiar with Collaboration and Approvals in ENOVIA.                                                                                 |
| Available Online  | Yes                                                                                                                                                                                                                                              |

### ENOVIA IP Classification Essentials (PACL)

|                   |                                                                                                                                                                                                                                                                                                                                                                                                    |
|-------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Course Code       | ENOV-en-PACL-F-15-151                                                                                                                                                                                                                                                                                                                                                                              |
| Available Release | 3DEXPERIENCE R2015x                                                                                                                                                                                                                                                                                                                                                                                |
| Duration          | 8 hours                                                                                                                                                                                                                                                                                                                                                                                            |
| Course Material   | English                                                                                                                                                                                                                                                                                                                                                                                            |
| Level             | Fundamental                                                                                                                                                                                                                                                                                                                                                                                        |
| Audience          | Classification Managers, Securities Services Managers, Technical Writers, Business Administrators and System Administrators                                                                                                                                                                                                                                                                        |
| Description       | This course will teach you how to use the ENOVIA IP Classification app to create document libraries, part libraries and general libraries and use of these libraries for organizing the parts and documents. You will learn how to store, manage and access documents and other files within the application in a collaborative work environment. Further, you will learn how to reatin documents. |
| Objectives        | <p>Upon completion of this course you will be able to:</p> <ul style="list-style-type: none"> <li>- Create different types of libraries and their related hierarchy</li> <li>- Create and manage documents and parts</li> <li>- Classify the library objects based on their features</li> <li>- Use the Classification functionality</li> </ul>                                                    |
| Prerequisites     | Students attending this course should have completed the Gateway to the 3DEXPERIENCE Platform and should be familiar with Collaboration and Approvals in ENOVIA.                                                                                                                                                                                                                                   |
| Available Online  | Yes                                                                                                                                                                                                                                                                                                                                                                                                |

### ENOVIA IP Protection Classification Essentials (IPCL)

|                   |                                                                                                                                                                                                                                                                                                                 |
|-------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Course Code       | ENOV-en-IPCL-F-15-151                                                                                                                                                                                                                                                                                           |
| Available Release | 3DEXPERIENCE R2015x                                                                                                                                                                                                                                                                                             |
| Duration          | 4 hours                                                                                                                                                                                                                                                                                                         |
| Course Material   | English                                                                                                                                                                                                                                                                                                         |
| Level             | Fundamental                                                                                                                                                                                                                                                                                                     |
| Audience          | Product Managers, IP Security Manager, IP Compliance Officer                                                                                                                                                                                                                                                    |
| Description       | This course will teach you how to secure the Intellectual Property in a company. You will learn to use various features and create security classes, libraries, rules and exceptions.                                                                                                                           |
| Objectives        | <p>Upon completion of this course you will be able to:</p> <ul style="list-style-type: none"> <li>- Create Security Libraries and Classes</li> <li>- Define Security Rules and Exceptions on Intellectual Property</li> <li>- Authorization of Intellectual Property</li> <li>- Generate Export Logs</li> </ul> |
| Prerequisites     | Students attending this course should have completed the Gateway to the 3DEXPERIENCE Platform course. Additionally, they should have knowledge of Collaboration and Approvals as well as IP Classification.                                                                                                     |
| Available Online  | Yes                                                                                                                                                                                                                                                                                                             |

# ENOVIA

## Product Planning and Program Management

## ENOVIA Project Execution Essentials (PREX)

|                   |                                                                                                                                                                                                                                                                                                                        |
|-------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Course Code       | ENOV-en-PREX-F-15-151                                                                                                                                                                                                                                                                                                  |
| Available Release | 3DEXPERIENCE R2015x                                                                                                                                                                                                                                                                                                    |
| Duration          | 8 hours                                                                                                                                                                                                                                                                                                                |
| Course Material   | English                                                                                                                                                                                                                                                                                                                |
| Level             | Fundamental                                                                                                                                                                                                                                                                                                            |
| Audience          | Project Members                                                                                                                                                                                                                                                                                                        |
| Description       | This course will teach how to use the Project Sharing app to manage your assigned tasks. You will be able to create projects and its schedule, modify the tasks, record the risks, and create timesheets.                                                                                                              |
| Objectives        | <p>Upon completion of this course you will be able to:</p> <ul style="list-style-type: none"> <li>- Create projects</li> <li>- Create and edit the project schedule</li> <li>- Create and assign accesses to folders</li> <li>- Record risks for projects and tasks</li> <li>- Create and submit timesheets</li> </ul> |
| Prerequisites     | Students attending this course should have completed the Gateway to the 3DEXPERIENCE Platform and should be familiar with Collaboration and Approvals in ENOVIA.                                                                                                                                                       |
| Available Online  | Yes                                                                                                                                                                                                                                                                                                                    |

## ENOVIA Project Management Advanced (PRPR)

|                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|-------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Course Code       | ENOV-en-PRPR-A-15-151                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Available Release | 3DEXPERIENCE R2015x                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Duration          | 8 hours                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Course Material   | English                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Level             | Advanced                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Audience          | Project Managers, Project Members and Reviewers                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Description       | This course focuses on the advanced functionalities of ENOVIA Program Central. You will learn how to manage risks associated with a project, assign people to meet the project's resource requirements and track quality metrics. You will also learn how to create budgets and benefits for a project, work with time sheets and generate labor reports.                                                                                                                                                                                                                                           |
| Objectives        | <p>Upon completion of this course you will be able to:</p> <ul style="list-style-type: none"> <li>- Document the various risk areas of a project and track them</li> <li>- Create and manage the resource requirements for a project</li> <li>- Create budgets and benefits to monitor the financials of a project</li> <li>- Track the time spent on a project using time sheets</li> <li>- Identify the quality factors of a project and monitor them</li> <li>- Create an assessment to measure the project's health</li> <li>- Use dashboards to monitor the status of your projects</li> </ul> |
| Prerequisites     | Students attending this course should have completed the Gateway to the 3DEXPERIENCE Platform and should be familiar with ENOVIA Project Management Fundamentals.                                                                                                                                                                                                                                                                                                                                                                                                                                   |

## ENOVIA Project Management Advanced (PRPR)

Available Online

Yes

## ENOVIA Project Management Fundamentals (PRPR)

|                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|-------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Course Code       | ENOV-en-PRPR-F-15-151                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Available Release | 3DEXPERIENCE R2015x                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Duration          | 8 hours                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Course Material   | English                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Level             | Fundamental                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Audience          | Project Managers, Project Members and Reviewers.                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Description       | This course will teach you how to create and manage projects, assign project members, create tasks, create folder structures and define access rights for managing the documents related to the projects. You will also learn how to create the process flows for the review and approval of tasks, and how to monitor the status of different projects. Additionally, you will learn how to use the Microsoft Project Integration functionality to exchange and view a project's data.         |
| Objectives        | <p>Upon completion of this course you will be able to:</p> <ul style="list-style-type: none"> <li>- Create programs and projects</li> <li>- Assign members to a project</li> <li>- Add tasks and assign project members to the tasks</li> <li>- Create folders for managing the project documents</li> <li>- Create process flow for the tasks</li> <li>- Review the status of programs and projects</li> <li>- Exchange and view projects' data using Microsoft Project Integration</li> </ul> |
| Prerequisites     | Students attending this course should have completed the Gateway to the 3DEXPERIENCE Platform and should be familiar with Collaboration and Approvals in ENOVIA.                                                                                                                                                                                                                                                                                                                                |
| Available Online  | Yes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |

# ENOVIA

## Quality and Compliance Management

### ENOVIA Materials Compliance Management Essentials (MACO)

|                   |                                                                                                                                                                                                                                                                                                                                      |
|-------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Course Code       | ENOV-en-MACO-F-15-151                                                                                                                                                                                                                                                                                                                |
| Available Release | 3DEXPERIENCE R2015x                                                                                                                                                                                                                                                                                                                  |
| Duration          | 8 hours                                                                                                                                                                                                                                                                                                                              |
| Course Material   | English                                                                                                                                                                                                                                                                                                                              |
| Level             | Fundamental                                                                                                                                                                                                                                                                                                                          |
| Audience          | Compliance Engineers, Senior Compliance Engineers and Supplier Representatives                                                                                                                                                                                                                                                       |
| Description       | In this course, you will learn how to create and manage materials, substances and material declarations that are required to design the assembly components. You will also learn how to collect the regulatory requirements, integrate them through a supplier chain, analyze the compliance reports and publish them for customers. |
| Objectives        | Upon completion of this course you will be able to: <ul style="list-style-type: none"> <li>- Create environmental compliances</li> <li>- Perform compliance analyses</li> <li>- Collaborate with suppliers</li> <li>- Create material declarations</li> <li>- Generate compliance reports</li> </ul>                                 |
| Prerequisites     | Students attending this course should have completed the Gateway to the 3DEXPERIENCE Platform and should be familiar with Collaboration and Approvals in ENOVIA.                                                                                                                                                                     |
| Available Online  | Yes                                                                                                                                                                                                                                                                                                                                  |

# ENOVIA

## Strategic Customer Relationship Management

### ENOVIA Traceable Requirements Management Essentials (RERE)

|                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|-------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Course Code       | ENOV-en-RERE-F-15-151                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Available Release | 3DEXPERIENCE R2015x                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Duration          | 16 hours                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Course Material   | English                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Level             | Fundamental                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Audience          | Requirement Manager, Product Manager, Product Architect, Product Engineer                                                                                                                                                                                                                                                                                                                                                                                               |
| Description       | This is a process-based course, which uses an industrial scenario to teach you how to use ENOVIA Traceable Requirements Management App for capturing, creating and managing the requirements. You will learn how to derive and decompose the requirements, create requirement specifications, associate requirements with models and products and validate the allocation status. You will also learn how to track the requirements using various traceability reports. |
| Objectives        | <p>Upon completion of this course you will be able to:</p> <ul style="list-style-type: none"> <li>- Capture Requirements from MS Word and MS Excel Documents</li> <li>- Create Requirements and Requirement Specifications</li> <li>- Allocate Requirements to Products and Models</li> <li>- Create Test Cases and Use Cases</li> <li>- Create Revision and multiple Versions of Requirements</li> <li>- Generate Traceability Reports</li> </ul>                      |
| Prerequisites     | Students attending this course should have completed the Gateway to the 3DEXPERIENCE Platform and                                                                                                                                                                                                                                                                                                                                                                       |

ENOVIA Traceable Requirements Management Essentials (RERE)

should be familiar with Collaboration and Approvals in ENOVIA.

Available Online

Yes

# **SIMULIA**

## **Multiphysics Simulation**

### SIMULIA 3DPlay Simulation Experience Essentials (3DP)

|                   |                                                                                                                                                                                                                                                                                                                    |
|-------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Course Code       | SIM-en-3DP-F-15-151                                                                                                                                                                                                                                                                                                |
| Available Release | 3DEXPERIENCE R2015x                                                                                                                                                                                                                                                                                                |
| Duration          | 2 hours                                                                                                                                                                                                                                                                                                            |
| Course Material   | English                                                                                                                                                                                                                                                                                                            |
| Level             | Fundamental                                                                                                                                                                                                                                                                                                        |
| Audience          | Mechanical Analyst, Structural Vibration Analyst, Noise & Vibration Analyst, Fluid Mechanical Analysis Engineer, Analyst, Multiphysics Simulation Researcher, Finite Element Modeling & Assembly Specialist, Structural Analysis Engineer, Steel Ship Structure Engineer, Stress Engineer, Fluid Dynamics Engineer |
| Description       | This course teaches you how to replay simulation experiences in 3DPlay leveraging lightweight results visualization.                                                                                                                                                                                               |
| Objectives        | Upon completion of this course you will be able to: <ul style="list-style-type: none"> <li>- Replay simulation experiences in 3DPlay</li> <li>- Perform lightweight visualization through web browsers</li> </ul>                                                                                                  |
| Prerequisites     | Students attending this course should have completed the Gateway to the 3DEXPERIENCE Platform course.                                                                                                                                                                                                              |
| Available Online  | Yes                                                                                                                                                                                                                                                                                                                |

### SIMULIA Durability Validation Essentials (DURV)

|                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|-------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Course Code       | SIM-en-DURV-F-15-151                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Available Release | 3DEXPERIENCE R2015x                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Duration          | 4 hours                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Course Material   | English                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Level             | Fundamental                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Audience          | Stress Engineer                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Description       | This course is an introduction to performing durability simulation to spur product and design innovation in the 3DEXPERIENCE Platform.                                                                                                                                                                                                                                                                                                                                        |
| Objectives        | <p>Upon completion of this course you will be able to:</p> <ul style="list-style-type: none"> <li>- Search and open simulations in the database</li> <li>- Understand the class of durability loads that can be applied</li> <li>- Perform a durability simulation</li> <li>- Apply loading history to represent real-world usage</li> <li>- Understand when surface finish can be applied</li> <li>- Review simulations stored in a database and generate reports</li> </ul> |
| Prerequisites     | Students attending this course should have completed the Gateway to the 3DEXPERIENCE Platform course and should be familiar with Structural Validation in SIMULIA.                                                                                                                                                                                                                                                                                                            |
| Available Online  | Yes                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |

### SIMULIA Fluid Mechanics Analyst Essentials (FLA)

|                   |                                                                                                                                                                                                                                                                                                           |
|-------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Course Code       | SIM-en-FLA-F-15-151                                                                                                                                                                                                                                                                                       |
| Available Release | 3DEXPERIENCE R2015x                                                                                                                                                                                                                                                                                       |
| Duration          | 16 hours                                                                                                                                                                                                                                                                                                  |
| Course Material   | English                                                                                                                                                                                                                                                                                                   |
| Level             | Fundamental                                                                                                                                                                                                                                                                                               |
| Audience          | Fluid Mechanics Analyst, Multiphysics Simulation Researcher                                                                                                                                                                                                                                               |
| Description       | This course is a comprehensive introduction to fluid mechanics simulation in the 3DEXPERIENCE Platform. In this course, you will learn how to solve computational fluid dynamics (CFD) problems.                                                                                                          |
| Objectives        | <p>Upon completion of this course you will be able to:</p> <ul style="list-style-type: none"> <li>- Set up and create CFD and CHT models in the 3DEXPERIENCE Platform</li> <li>- Perform CFD analyses</li> <li>- Perform fully coupled CHT analyses</li> <li>- Postprocess CFD and CHT results</li> </ul> |
| Prerequisites     | Students attending this course should have completed the Gateway to the 3DEXPERIENCE Platform course.                                                                                                                                                                                                     |
| Available Online  | Yes                                                                                                                                                                                                                                                                                                       |

### SIMULIA Fluid Mechanics Validation Essentials (FLOV)

|                   |                                                                                                                                                                                                                                                                                                                                                                                  |
|-------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Course Code       | SIM-en-FLOV-F-15-151                                                                                                                                                                                                                                                                                                                                                             |
| Available Release | 3DEXPERIENCE R2015x                                                                                                                                                                                                                                                                                                                                                              |
| Duration          | 4 hours                                                                                                                                                                                                                                                                                                                                                                          |
| Course Material   | English                                                                                                                                                                                                                                                                                                                                                                          |
| Level             | Fundamental                                                                                                                                                                                                                                                                                                                                                                      |
| Audience          | Fluid Dynamics Engineer                                                                                                                                                                                                                                                                                                                                                          |
| Description       | This course is an introduction to performing flow simulation to spur product and design innovation in the 3DEXPERIENCE Platform. In this course, you will learn how to perform realistic simulations of flow phenomena in order to validate designs.                                                                                                                             |
| Objectives        | <p>Upon completion of this course you will be able to:</p> <ul style="list-style-type: none"> <li>- Search and manage simulation data in the database</li> <li>- Perform a fluid flow and heat transfer analysis using the Fluid Mechanics Validation app</li> <li>- Obtain appropriate reports to produce highly efficient designs and/or optimize their performance</li> </ul> |
| Prerequisites     | Students attending this course should have completed the Gateway to the 3DEXPERIENCE Platform course.                                                                                                                                                                                                                                                                            |
| Available Online  | Yes                                                                                                                                                                                                                                                                                                                                                                              |

### SIMULIA Linear Dynamics Scenario Creation Essentials (DYNS)

|                   |                                                                                                                                                                                                                                                                                                                     |
|-------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Course Code       | SIM-en-DYNS-F-15-151                                                                                                                                                                                                                                                                                                |
| Available Release | 3DEXPERIENCE R2015x                                                                                                                                                                                                                                                                                                 |
| Duration          | 8 hours                                                                                                                                                                                                                                                                                                             |
| Course Material   | English                                                                                                                                                                                                                                                                                                             |
| Level             | Fundamental                                                                                                                                                                                                                                                                                                         |
| Audience          | Structural Vibration Analyst, Noise & Vibration Analyst                                                                                                                                                                                                                                                             |
| Description       | This course is an introduction to linear dynamics simulation in the 3DEXPERIENCE Platform. It teaches you how to solve linear dynamics problems, including natural frequency, harmonic response, and model dynamic applications. It also provides an introduction to solving interior structural-acoustic problems. |
| Objectives        | <p>Upon completion of this course you will be able to:</p> <ul style="list-style-type: none"> <li>- Perform linear dynamics simulations</li> <li>- Perform coupled structural-acoustic simulations</li> <li>- View and evaluate simulation results</li> </ul>                                                       |
| Prerequisites     | Students attending this course should have completed the Gateway to the 3DEXPERIENCE Platform course and should be familiar with Structural Model Creation in SIMULIA.                                                                                                                                              |
| Available Online  | Yes                                                                                                                                                                                                                                                                                                                 |

### SIMULIA Mechanical Scenario Creation Essentials (MECS)

|                   |                                                                                                                                                                                                                                                                                   |
|-------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Course Code       | SIM-en-MECS-F-15-151                                                                                                                                                                                                                                                              |
| Available Release | 3DEXPERIENCE R2015x                                                                                                                                                                                                                                                               |
| Duration          | 16 hours                                                                                                                                                                                                                                                                          |
| Course Material   | English                                                                                                                                                                                                                                                                           |
| Level             | Fundamental                                                                                                                                                                                                                                                                       |
| Audience          | Mechanical Analyst, Multiphysics Simulation Researcher                                                                                                                                                                                                                            |
| Description       | This course is an introduction to mechanical and thermal simulation in the 3DEXPERIENCE Platform. It teaches you how to solve both linear and nonlinear static and dynamics problems and view simulation results.                                                                 |
| Objectives        | <p>Upon completion of this course you will be able to:</p> <ul style="list-style-type: none"> <li>- Perform structural simulations (linear and nonlinear; statics and dynamics)</li> <li>- Perform thermal simulations</li> <li>- View and evaluate simulation results</li> </ul> |
| Prerequisites     | Students attending this course should have completed the Gateway to the 3DEXPERIENCE Platform course and should be familiar with Structural Model Creation in SIMULIA.                                                                                                            |
| Available Online  | Yes                                                                                                                                                                                                                                                                               |

### SIMULIA Model Assembly Design Essentials (MSAM)

|                   |                                                                                                                                                                                                                                                                                                                               |
|-------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Course Code       | SIM-en-MSAM-F-15-151                                                                                                                                                                                                                                                                                                          |
| Available Release | 3DEXPERIENCE R2015x                                                                                                                                                                                                                                                                                                           |
| Duration          | 4 hours                                                                                                                                                                                                                                                                                                                       |
| Course Material   | English                                                                                                                                                                                                                                                                                                                       |
| Level             | Fundamental                                                                                                                                                                                                                                                                                                                   |
| Audience          | Assembly Modeling Specialist, Finite Element Modeling & Assembly Specialist                                                                                                                                                                                                                                                   |
| Description       | This course is an introduction to creating large and complex finite element assemblies using the Batch Modeling technology in the 3DEXPERIENCE Platform. The course also discusses managing the product structure for large assemblies of parts and meshes created either in the 3DEXPERIENCE Platform or in 3rd-party tools. |
| Objectives        | Upon completion of this course you will be able to: <ul style="list-style-type: none"> <li>- Create external simulation representations.</li> <li>- Perform batch modeling.</li> </ul>                                                                                                                                        |
| Prerequisites     | Students attending this course should have completed the Gateway to the 3DEXPERIENCE Platform course and should be familiar with Structural Model Creation: Geometry and Meshing in SIMULIA.                                                                                                                                  |
| Available Online  | Yes                                                                                                                                                                                                                                                                                                                           |

### SIMULIA Multiphysics Scenario Creation Essentials (MPHS)

|                   |                                                                                                                                                                                                                                                                                                                                                    |
|-------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Course Code       | SIM-en-MPHS-F-15-151                                                                                                                                                                                                                                                                                                                               |
| Available Release | 3DEXPERIENCE R2015x                                                                                                                                                                                                                                                                                                                                |
| Duration          | 4 hours                                                                                                                                                                                                                                                                                                                                            |
| Course Material   | English                                                                                                                                                                                                                                                                                                                                            |
| Level             | Fundamental                                                                                                                                                                                                                                                                                                                                        |
| Audience          | Multiphysics Simulation Researcher                                                                                                                                                                                                                                                                                                                 |
| Description       | This course is a comprehensive introduction to fluid-structure interaction (FSI) and conjugate heat transfer (CHT) co-simulation in the 3DEXPERIENCE Platform.                                                                                                                                                                                     |
| Objectives        | <p>Upon completion of this course you will be able to:</p> <ul style="list-style-type: none"> <li>- Set up and create CHT and FSI models for co-simulation analysis in the 3DEXPERIENCE Platform</li> <li>- Perform FSI co-simulation analyses</li> <li>- Perform CHT co-simulation analyses</li> <li>- Postprocess FSI and CHT results</li> </ul> |
| Prerequisites     | Students attending this course should have completed the Gateway to the 3DEXPERIENCE Platform course and should be familiar with Mechanical Scenario Creation and Fluid Mechanics Analysis in SIMULIA.                                                                                                                                             |
| Available Online  | Yes                                                                                                                                                                                                                                                                                                                                                |

## SIMULIA Performance Study Essentials (DISB)

|                   |                                                                                                                                                                                                                                                                                                                                                                     |
|-------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Course Code       | SIM-en-DISB-F-15-151                                                                                                                                                                                                                                                                                                                                                |
| Available Release | 3DEXPERIENCE R2015x                                                                                                                                                                                                                                                                                                                                                 |
| Duration          | 4 hours                                                                                                                                                                                                                                                                                                                                                             |
| Course Material   | English                                                                                                                                                                                                                                                                                                                                                             |
| Level             | Fundamental                                                                                                                                                                                                                                                                                                                                                         |
| Audience          | Mechanical Analyst, Structural Vibration Analyst, Noise & Vibration Analyst, Fluid Mechanics Analyst, Multiphysics Simulation Researcher, Finite Element Modeling & Assembly Specialist, Structural Analysis Engineer, Steel Ship Structural Analysis Engineer, Stress Engineer, Fluid Dynamics Engineer, Simulation Process Method Developer, Results Data Analyst |
| Description       | This course is an introduction to the lightweight web-based tool in the 3DEXPERIENCE Platform that allows simulation analysts and engineers to run predefined Simulation Processes.                                                                                                                                                                                 |
| Objectives        | <p>Upon completion of this course you will be able to:</p> <ul style="list-style-type: none"> <li>- Instantiate Simulation Processes from Simulation Experiences</li> <li>- Run and monitor Simulation Processes</li> <li>- Manage Simulation Processes</li> </ul>                                                                                                  |
| Prerequisites     | Students attending this course should have completed the Gateway to the 3DEXPERIENCE Platform course.                                                                                                                                                                                                                                                               |
| Available Online  | Yes                                                                                                                                                                                                                                                                                                                                                                 |

### SIMULIA Process Composer Essentials (PRCW)

|                   |                                                                                                                                                                                                                              |
|-------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Course Code       | SIM-en-PRCW-F-15-151                                                                                                                                                                                                         |
| Available Release | 3DEXPERIENCE R2015x                                                                                                                                                                                                          |
| Duration          | 8 hours                                                                                                                                                                                                                      |
| Course Material   | English                                                                                                                                                                                                                      |
| Level             | Fundamental                                                                                                                                                                                                                  |
| Audience          | Mechanical Analyst, Structural Vibration Analyst, Noise & Vibration Analyst, Fluid Mechanics Analyst, Multiphysics Simulation Researcher, Finite Element Modeling & Assembly Specialist, Simulation Process Method Developer |
| Description       | This course provides an introduction to integrating the various tools (simulation, CAD, etc.) that might be available within an organization to create a Simulation Process.                                                 |
| Objectives        | Upon completion of this course you will be able to: <ul style="list-style-type: none"> <li>- Compose Simulation Processes</li> <li>- Produce Simulation Experiences</li> </ul>                                               |
| Prerequisites     | Students attending this course should have completed the Gateway to the 3DEXPERIENCE Platform course.                                                                                                                        |
| Available Online  | Yes                                                                                                                                                                                                                          |

### SIMULIA Results Analytics Essentials (REII)

|                   |                                                                                                                                                                                                                                                            |
|-------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Course Code       | SIM-en-REII-F-15-151                                                                                                                                                                                                                                       |
| Available Release | 3DEXPERIENCE R2015x                                                                                                                                                                                                                                        |
| Duration          | 8 hours                                                                                                                                                                                                                                                    |
| Course Material   | English                                                                                                                                                                                                                                                    |
| Level             | Fundamental                                                                                                                                                                                                                                                |
| Audience          | Simulation Process Method Developer and Results Data Analyst.                                                                                                                                                                                              |
| Description       | This course is an introduction to the integrated web-based tool in the 3DEXPERIENCE Platform that allows decision makers to collaboratively choose the best design from a large pool of data. This tool allows one to view and conduct trade-off analyses. |
| Objectives        | <p>Upon completion of this course you will be able to:</p> <ul style="list-style-type: none"> <li>- Initialize an analytics case</li> <li>- Conduct trade-off analyses</li> <li>- Select the best alternative</li> </ul>                                   |
| Prerequisites     | Students attending this course should have completed the Gateway to the 3DEXPERIENCE Platform course.                                                                                                                                                      |
| Available Online  | Yes                                                                                                                                                                                                                                                        |

### SIMULIA Simulation Model Design Essentials (SML)

|                   |                                                                                                                                                                                                                                          |
|-------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Course Code       | SIM-en-SML-F-15-151                                                                                                                                                                                                                      |
| Available Release | 3DEXPERIENCE R2015x                                                                                                                                                                                                                      |
| Duration          | 8 hours                                                                                                                                                                                                                                  |
| Course Material   | English                                                                                                                                                                                                                                  |
| Level             | Fundamental                                                                                                                                                                                                                              |
| Audience          | Mechanical Analyst, Structural Vibration Analyst, Noise & Vibration Analyst, Fluid Mechanics Analyst, Multiphysics Simulation Researcher, Finite Element Modeling & Assembly Specialist                                                  |
| Description       | This course is an introduction to creating and assembling geometry in the 3DEXPERIENCE Platform. The focus is on techniques relevant to simulation.                                                                                      |
| Objectives        | <p>Upon completion of this course you will be able to:</p> <ul style="list-style-type: none"> <li>- Create basic native solid geometry.</li> <li>- Create basic native shell geometry.</li> <li>- Create assemblies of parts.</li> </ul> |
| Prerequisites     | Students attending this course should have completed the Gateway to the 3DEXPERIENCE Platform course.                                                                                                                                    |
| Available Online  | Yes                                                                                                                                                                                                                                      |

### SIMULIA Structural Model Creation : Geometry and Meshing (MECM2)

|                   |                                                                                                                                                                                                                                             |
|-------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Course Code       | SIM-en-MECM2-F-15-151                                                                                                                                                                                                                       |
| Available Release | 3DEXPERIENCE R2015x                                                                                                                                                                                                                         |
| Duration          | 16 hours                                                                                                                                                                                                                                    |
| Course Material   | English                                                                                                                                                                                                                                     |
| Level             | Fundamental                                                                                                                                                                                                                                 |
| Audience          | Mechanical Analyst, Structural Vibration Analyst, Noise & Vibration Analyst, Multiphysics Simulation Researcher, Finite Element Modeling & Assembly Specialist                                                                              |
| Description       | This course provides an in-depth look at cleaning/repairing geometry for the purpose of generating high quality meshes. It also offers a comprehensive discussion on meshing techniques. The focus is on techniques relevant to simulation. |
| Objectives        | Upon completion of this course you will be able to: <ul style="list-style-type: none"> <li>- Clean and repair native and imported geometry.</li> <li>- Use advanced meshing techniques.</li> </ul>                                          |
| Prerequisites     | Students attending this course should have completed the Gateway to the 3DEXPERIENCE Platform course and should be familiar with Structural Model Creation in SIMULIA.                                                                      |
| Available Online  | Yes                                                                                                                                                                                                                                         |

### SIMULIA Structural Model Creation Essentials (MECM)

|                   |                                                                                                                                                                                                                                       |
|-------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Course Code       | SIM-en-MECM-F-15-151                                                                                                                                                                                                                  |
| Available Release | 3DEXPERIENCE R2015x                                                                                                                                                                                                                   |
| Duration          | 8 hours                                                                                                                                                                                                                               |
| Course Material   | English                                                                                                                                                                                                                               |
| Level             | Fundamental                                                                                                                                                                                                                           |
| Audience          | Mechanical Analyst, Structural Vibration Analyst, Noise & Vibration Analyst, Multiphysics Simulation Researcher, Structural Analysis Engineer, Steel Ship Structural Analysis Engineer, Finite Element Modeling & Assembly Specialist |
| Description       | This course is an introduction to finite element modeling in the 3DEXPERIENCE Platform. It teaches you how to prepare finite element models for simulation.                                                                           |
| Objectives        | Upon completion of this course you will be able to: <ul style="list-style-type: none"> <li>- Create complete Finite Element models for structural and thermal simulations</li> </ul>                                                  |
| Prerequisites     | Students attending this course should have completed the Gateway to the 3DEXPERIENCE Platform course.                                                                                                                                 |
| Available Online  | Yes                                                                                                                                                                                                                                   |

## SIMULIA Structural Scenario Creation Essentials (EMCS)

|                   |                                                                                                                                                                                                                                                                                   |
|-------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Course Code       | SIM-en-EMCS-F-15-151                                                                                                                                                                                                                                                              |
| Available Release | 3DEXPERIENCE R2015x                                                                                                                                                                                                                                                               |
| Duration          | 8 hours                                                                                                                                                                                                                                                                           |
| Course Material   | English                                                                                                                                                                                                                                                                           |
| Level             | Fundamental                                                                                                                                                                                                                                                                       |
| Audience          | Structural Analysis Engineer, Steel Ship Structural Analysis Engineer                                                                                                                                                                                                             |
| Description       | This course is an introduction to structural and thermal simulation in the 3DEXPERIENCE Platform. It teaches you how to solve both linear and nonlinear static problems and basic linear dynamics problems.                                                                       |
| Objectives        | <p>Upon completion of this course you will be able to:</p> <ul style="list-style-type: none"> <li>- Perform structural simulations (linear and nonlinear; statics and dynamics)</li> <li>- Perform thermal simulations</li> <li>- View and evaluate simulation results</li> </ul> |
| Prerequisites     | Students attending this course should have completed the Gateway to the 3DEXPERIENCE Platform course and should be familiar with Structural Model Creation in SIMULIA.                                                                                                            |
| Available Online  | Yes                                                                                                                                                                                                                                                                               |

## SIMULIA Structural Validation Essentials (STRV)

|                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|-------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Course Code       | SIM-en-STRV-F-15-151                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Available Release | 3DEXPERIENCE R2015x                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Duration          | 4 hours                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Course Material   | English                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Level             | Fundamental                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Audience          | Stress Engineer                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Description       | This course is an introduction to performing structural simulation to spur product and design innovation in the 3DEXPERIENCE Platform. The 3DEXPERIENCE Platform enables realistic structural simulation of parts/assemblies under mechanical loading conditions early in the design cycle, when the cost of design change is low and opportunity is high.                                                                                                             |
| Objectives        | <p>Upon completion of this course you will be able to:</p> <ul style="list-style-type: none"> <li>- Search for simulation data in the database</li> <li>- Open the simulation for modification</li> <li>- Perform a structural/frequency simulation using the Structural Validation app</li> <li>- Perform thermal and thermal-structural simulations the Structural Validation app</li> <li>- Review simulations stored in a database and generate reports</li> </ul> |
| Prerequisites     | Students attending this course should have completed the Gateway to the 3DEXPERIENCE Platform course.                                                                                                                                                                                                                                                                                                                                                                  |
| Available Online  | Yes                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |

