

COURSE CATALOG

V6
April 2014



3DEXPERIENCE

3DS Learning Solutions | Course Catalog

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DELMIA DELMIA Manufacturing Planning V6

DELMIA Assembly Process Simulation Essentials (APS)

Course Code	DEL-en-APS-F-V6R131
Available Releases	V6R2012 , V6R2012x , V6R2013 , V6R2013x
Duration	8 hours
Course Materials	English , Japanese
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 use the various capabilities of DELMIA Assembly Process Simulation to identify potential assembly issues and communicate them directly to the product designers in the 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"> - Determine the assembly feasibility of manufactured parts - Define, simulate and review the entire process to identify potential design issues - Create product assembly simulation to analyze the impact on the shop floor - Perform the assembly sequence analysis - Save time by analyzing multiple assembly scenarios to determine the most optimal process

DELMIA Assembly Process Simulation Essentials (APS)

Prerequisites	Students attending this course should be familiar with Mechanical Engineering concepts and DELMIA V6 fundamentals.
Available Online	Yes

DELMIA Custom Time Analysis Essentials (CTA)	
Course Code	DEL-en-CTA-F-V6R131
Available Releases	V6R2013 , V6R2013x
Duration	6 hours
Course Material	English
Level	Fundamental
Audience	Process Planners, System Planners and Resource Planners
Description	This course will teach you how to use DELMIA Custom Time Analysis (CTA) to perform time studies in an efficient and accurate manner. You will learn how to analyze any type of manual work using various measurement techniques. You will also learn how to increase productivity, improve methods, plan efficiently, establish workloads, and maximize the use of resources. In the end, you will learn how to create customized data cards.
Objectives	<p>Upon completion of this course you will be able to:</p> <ul style="list-style-type: none"> - Calculate the time required to perform an operation or a set of operations - Determine the workload of an operation - Streamline the operations by identifying and eliminating inefficient methods - Create customized data cards that include company-specific time analysis data
Prerequisites	Students attending this course should have completed the V6 DELMIA Process Planning Essentials course.
Available Online	Yes

DELMIA Fastener Process Planning Essentials (BPP)

Course Code	DEL-en-BPP-F-V6R130
Available Release	V6R2013
Duration	8 hours
Course Material	English
Level	Fundamental
Audience	Process Planners, System Planners, and Resource Planners
Description	This course will teach you how to create, optimize, and validate process plans that relate to fasteners. You will learn to identify unassigned fasteners using an assignment assistant. You will also learn to freeze and release the fastener's position at a specific Assembly process. Additionally, you will learn to create punctual operations and manage their product flow in the system.
Objectives	<p>Upon completion of this course you will be able to:</p> <ul style="list-style-type: none"> - Create the process plan - Assign parts and fasteners to a process - Create the fastener process - Freeze and release the fastener process position - Create and manage punctual operations - Automatically select weld guns - Validate accessibility for selected weld guns
Prerequisites	Students attending this course should have attended the V6 DELMIA Process Planning Essentials Course.
Available Online	Yes

DELMIA Live Assembly Essentials (LAS)	
Course Code	DEL-en-LAS-F-V6R131
Available Releases	V6R2012 , V6R2012x , V6R2013 , V6R2013x
Duration	4 hours
Course Material	English
Level	Fundamental
Audience	Assembly Planners, Design Engineers and Process Planners
Description	This course will teach you how to organize the assembly process structure and define the status of the assemblies and parts to prepare them for manufacturing production. You will also learn how to use the sequencing and simulation features to modify the process in response to a clash detection.
Objectives	<p>Upon completion of this course you will be able to:</p> <ul style="list-style-type: none"> - Validate the assembly feasibility of product designs through simulation - Manipulate the assembly parts to define the assembly trajectories - Simulate the operations - Report the design change impacts - Perform co-reviews of the manufacturing assembly structure
Prerequisites	Students attending this course should be familiar with Assembly Planning and DELMIA V6 fundamentals.
Available Online	Yes

DELMIA Manufactured Product Planning Essentials (MPP)	
Course Code	DEL-en-MPP-F-V6R130
Available Releases	V6R2012 , V6R2013
Duration	8 hours
Course Material	English
Level	Fundamental
Audience	Manufacturing Planners
Description	This course will teach you about the various aspects of Manufacturing Planning. Initially, you will learn to generate the MBOM for a product assembly. Then, you will learn to create a new manufacturing assembly and a manufacturing kit. Following this, you will apply the Make/Buy changes and the Effectivity. Finally, you will learn how to track the changes done on the manufacturing items.
Objectives	<p>Upon completion of this course you will be able to:</p> <ul style="list-style-type: none"> - Generate the Manufacturing Bill Of Materials - Generate Manufacturing assemblies and kits - Create Manufacturing Specific Parts - Assign Manufacturing Responsibilities and Effectivity - Manage quantities of manufactured parts - Understand the basics of Change Tracking
Prerequisites	Students attending this course should be familiar with DELMIA V6 and Manufacturing Planning
Available Online	Yes

DELMIA Process and Resource Editor Essentials (PRE)

Course Code	DEL-en-PRE-F-V6R120
Available Release	V6R2012
Duration	8 hours
Course Material	English
Level	Fundamental
Audience	Manufacturing Engineers, Quality Engineers, Industrial Engineers, Project Managers
Description	This course teaches you how to create and use the basic elements of the PPR Context - Product, Process, System, and Resource. Initially, you will set up the environment to work in Product Resource Editor Workbench. Then, you will create the PPR root structures, that is, a Functional Process, Manufacturing System, and a Physical Resource. Later, you will define scope between each of these root structures. Finally, you will review the Context Dataset.
Objectives	<p>Upon completion of this course you will be able to:</p> <ul style="list-style-type: none"> - Author the Process Product Resources (PPR) root structure and high-level relationships - Build the Process Product Resources (PPR) context
Prerequisites	Students attending this course must have attended the DELMIA Process Planning Essentials course
Available Online	Yes

DELMIA Process Planning Essentials (PRP)	
Course Code	DEL-en-PRP-F-V6R131
Available Releases	V6R2012 , V6R2012x , V6R2013 , V6R2013x
Duration	32 hours
Course Material	English
Level	Fundamental
Audience	Mechanical Designers, Industrial Engineers, Simulation Engineers, Process Planners
Description	<p>This course will teach you how to create processes, templates, and catalogs. This course deals with defining processes, detailing process flow and managing Product to Process assignments. It also teaches you to create a virtual manufacturing environment for significant cost savings. This course will also teach you how to create a layout design for a manufacturing plant and how to use the resources. You will also learn how to balance resources as per operations.</p>
Objectives	<p>Upon completion of this course you will be able to:</p> <ul style="list-style-type: none"> - Streamline the work preparation through a process plan - Define and verify the assembly - Assign a product and resource specifications to the processes - Create a virtual process path - Validate the simulation - Add the resources and position them - Balance the resources for their effective utilization - Create, edit, attach, and delete time analysis

DELMIA Process Planning Essentials (PRP)

Prerequisites

Students attending this course should be familiar with V6 Fundamentals, Mechanical Design, and the Windows Operating System.

Available Online

Yes

DELMIA
DELMIA Plant and Resources
Engineering V6

DELMIA Mechanical Device Builder Essentials (MDB)

Course Code	DEL-en-MDB-F-V6R120
Available Release	V6R2012
Duration	16 hours
Course Material	English
Level	Fundamental
Audience	Design Engineers, Tool Designers
Description	<p>DELMIA Mechanical Device Builder course will teach you how to create a solid foundation to build a device. Initially, you will learn to create the Engineering Connections for an assembly that correspond to the Fixed, Revolute, Prismatic, and Rigid joints between the parts of an assembly. Then, you will define the attributes like Home Positions, Travel Limits, Speed Limits, and Mechanical Port that enable the device to perform a task. Later, you will assign the Inverse Kinematics to the device.</p>
Objectives	<p>Upon completion of this course you will be able to:</p> <ul style="list-style-type: none"> - Create Engineering Connections for an assembly - Create different Profiles for a device - Define the Device Attributes for a device - Assign the Inverse Kinematics for a device
Prerequisites	<p>Students attending this course should know the basics of DELMIA V6, and be familiar with Device Kinematics, and Robotics concepts.</p>
Available Online	Yes

DELMIA NC Machine Builder Essentials (NMB)

Course Code	DEL-en-NMB-F-V6R131
Available Releases	V6R2012 , V6R2012x , V6R2013x
Duration	14 hours
Course Material	English
Level	Fundamental
Audience	Design Engineers and Machine Tool Builders
Description	This course will teach you how to build the kinematics for the assemblies of an NC machine and how to create the corresponding NC resources. You will learn how to create machines using the assemblies with kinematics. You will also learn how to assign various attributes to an NC machine.
Objectives	<p>Upon completion of this course you will be able to:</p> <ul style="list-style-type: none"> - Build the kinematics for a machine assembly - Create the machine resources - Define the attributes for the machine resources
Prerequisites	Students attending this course should be familiar with the concepts of machine kinematics
Available Online	Yes

DELMIA

DELMIA Program and Control Engineering V6

DELMIA Ergonomics Evaluation Essentials (EGE)	
Course Code	DEL-en-EGE-F-V6R130
Available Release	V6R2013
Duration	12 hours
Course Material	English
Level	Fundamental
Audience	Ergonomics Engineers and Process Planners
Description	This course will teach you how to create manikins of either gender from any population, with specific stature and weight, in an immersive 3D environment. You will also learn how to customize the attributes of the manikins and use the manikin vision assessment capability.
Objectives	<p>Upon completion of this course you will be able to:</p> <ul style="list-style-type: none"> - Create and insert a manikin - Customize the manikin - Use the posturing tools to position the manikin - Analyze the manikin
Prerequisites	Students attending this course should have knowledge of Windows operating system, mechanical engineering, and ergonomics.
Available Online	Yes

DELMIA Extended Milling Machining Essentials (EMM)

Course Code	DEL-en-EMM-F-V6R131
Available Releases	V6R2012 , V6R2012x , V6R2013 , V6R2013x
Duration	16 hours
Course Material	English
Level	Fundamental
Audience	Advanced Numerical Control (NC) Programmers
Description	This course teaches you how to generate high quality NC programs for machining complex 3D parts and free-form shapes using advanced machining techniques. You will learn how to perform 2.5 to 5-Axis machining operations.
Objectives	<p>Upon completion of this course you will be able to:</p> <ul style="list-style-type: none"> - Define Multi-Axis Finishing Operations - Define Multi-Axis Contouring Operations - Define Multi-Pockets Operations in Power Machining and Flank Contouring - Define Multi-Axis Helix Machining Operation
Prerequisites	Students attending this course should have attended DELMIA Prismatic Machining Fundamentals and DELMIA Milling Machining Essentials courses.
Available Online	Yes

DELMIA Milling Machining Essentials (MIM)	
Course Code	DEL-en-MIM-F-V6R131
Available Releases	V6R2012 , V6R2012x , V6R2013 , V6R2013x
Duration	16 hours
Course Material	English
Level	Fundamental
Audience	Manufacturing Users (NC Programmers)
Description	This course will teach you how to define and manage NC programs dedicated to machining parts that are designed with Surface or Solid geometry. You will learn how to define 3-Axis Roughing, Semi-finishing, and Finishing operations. The course will also help you to improve productivity in mould and die machining using various functionalities of 3-Axis Surface Machining.
Objectives	<p>Upon completion of this course you will be able to:</p> <ul style="list-style-type: none"> - Create Machining Features that can be used for defining Machining operations - Define 3-Axis Surface Machining operations - Define a Rework Area - Analyze and modify the Tool Path
Prerequisites	Students attending this course should have taken the DELMIA Prismatic Machining Fundamentals course
Available Online	Yes

DELMIA NC Machine Simulation Essentials (NMS)	
Course Code	DEL-en-NMS-F-V6R131
Available Releases	V6R2013 , V6R2013x
Duration	4 hours
Course Material	English
Level	Fundamental
Audience	NC Programmers
Description	This course will teach you how to simulate an NC machine using toolpath and NC code. You will learn how to create Probes in the Live Simulation 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"> - Create a Live Simulation Environment - Simulate the machine using toolpath and NC code - Create Probes to detect Clashes during the machine simulation - Analyze and eliminate the Clashes
Prerequisites	Students attending this course should have completed the DELMIA Prismatic Machining Fundamentals course.
Available Online	Yes

DELMIA Prismatic Machining Advanced (MTM)	
Course Code	DEL-en-MTM-A-V6R131
Available Release	V6R2013x
Duration	20 hours
Course Material	English
Level	Advanced
Audience	Manufacturing Users (NC Programmers)
Description	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 3D Part.
Objectives	<p>Upon completion of this course you will be able to:</p> <ul style="list-style-type: none"> - Create a tools catalog to manage the tools and tool assemblies - Associate a user representation to a tool assembly - Create and instantiate a Machining Process catalog - Create a Machining Template for Resources and Programming - Optimize a program using the Auto Sequencing functionality - Copy and transform the machining operations to machine similar profiles in a part - Customize a PP Word Table - Save the video simulation result into a 3D Part
Prerequisites	Students attending this course should have attended the DELMIA Prismatic Machining Fundamentals course.

DELMIA Prismatic Machining Advanced (MTM)

Available Online

Yes

DELMIA Prismatic Machining Fundamentals (MTM)	
Course Code	DEL-en-MTM-F-V6R131
Available Releases	V6R2012 , V6R2012x , V6R2013 , V6R2013x
Duration	28 hours
Course Material	English
Level	Fundamental
Audience	Manufacturing Users (NC Programmers)
Description	<p>This course will teach you how to use various common functionalities across all the Machining workbenches in DELMIA. The course will teach you the fundamentals of creating and simulating a tool path. It also teaches you how to create tool paths for 2 and 2.5 axis machining operations. It will teach you to create probes in the Live Simulation Environment. Then, it will teach you to simulate machines using material removal, and detect and analyze the clashes that occur during simulation.</p>
Objectives	<p>Upon completion of this course you will be able to:</p> <ul style="list-style-type: none"> - Explore the Machine Programming workbench and various Machining functionalities - Define the Machining Infrastructure - Create Tools and Tool Assemblies - Define Prismatic Machining Operations - Replay and Simulate the tool path - Simulate the machine in the Live Simulation Environment - Generate Numerical Control (NC) Output
Prerequisites	Students attending this course should know the fundamentals of Machining

DELMIA Prismatic Machining Fundamentals (MTM)

Available Online

Yes

DELMIA Robotics Arc Welding Essentials (ARW)	
Course Code	DEL-en-ARW-F-V6R121
Available Release	V6R2012x
Duration	8 hours
Course Material	English
Level	Fundamental
Audience	Robotics Engineers, Simulation Engineers
Description	DELMIA Robotics Arc Welding 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. Finally, you will learn to download a robot program from a V6 robot task.
Objectives	<p>Upon completion of this course you will be able to:</p> <ul style="list-style-type: none"> - Create an Applicative Profile - Define Parameter for the Arc Welding Profile - Create the Seam Search Trajectory - Create an Arc Welding Task - Create the Position Programming - Upload and Download Robot Programs
Prerequisites	Students attending this course should be familiar with the Robot Task Definition workbench.
Available Online	Yes

DELMIA Robotics Offline Programming Essentials (ROP)

Course Code	DEL-en-ROP-F-V6R131
Available Release	V6R2013x
Duration	8 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"> - Upload and download robot programs - Teach the robot using the Native Robot Language - Import and export the tag group data - Calibrate the workcell components - Calibrate the robot signature
Prerequisites	Students attending this course should be familiar with the Robot Task Definition workbench and V6 fundamentals.
Available Online	Yes

DELMIA Robotics Spot Welding Essentials (RSW)	
Course Code	DEL-en-RSW-F-V6R131
Available Releases	V6R2012x , V6R2013x
Duration	12 hours
Course Material	English
Level	Fundamental
Audience	Robotics Engineers and Simulation Engineers
Description	This course will teach you how to create robotics spot welding trajectories, tasks and programs 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 download a robot program from a V6 robot task.
Objectives	<p>Upon completion of this course you will be able to:</p> <ul style="list-style-type: none"> - Analyze the spot welding feasibility for spot welding robots and guns - Generate the manufacturing specifications keeping the design and the resources in view - Generate a spot welding task from the manufacturing specifications - Teach the robot to perform the spot welding task - Download the robot program
Prerequisites	Students attending this course should be familiar with Robot Task Definition, Device Building and DELMIA V6 fundamentals.
Available Online	Yes

DELMIA Robot Task Definition Essentials (RTD)	
Course Code	DEL-en-RTD-F-V6R131
Available Releases	V6R2012x , V6R2013x
Duration	16 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. Finally, you will learn how to download a robot program from a V6 robot task.
Objectives	<p>Upon completion of this course you will be able to:</p> <ul style="list-style-type: none"> - Define a composite simulation state - Create and manipulate a tag - Generate a robot task - Teach the robot how to perform a task - Create and validate an Input/Output (IO) connection - Validate a workcell simulation - Upload and download a robot program
Prerequisites	Students attending this course should be familiar with Mechanical Design concepts and V6 fundamentals.
Available Online	Yes

DELMIA Turning Machining Essentials (TUM)

Course Code	DEL-en-TUM-F-V6R131
Available Releases	V6R2013 , V6R2013x
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"> - Define the machining infrastructure - Create lathe tools and assemblies - Define the turning operations - Define multiple spindles and turrets for a multi-slide machine - Define the milling operations using the multi-slide machine - Define multi-setups and multi-part machining - Replay and simulate the tool paths - Generate the Numerical Control (NC) output
Prerequisites	<p>Students attending this course should have completed the DELMIA Prismatic Machining Fundamentals course</p>

DELMIA Turning Machining Essentials (TUM)

Available Online

Yes

DELMIA V5 to V6 Machining Transition (MTMT)

Course Code	DEL-en-MTMT-F-V6R131
Available Release	V6R2013x
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 V6, and how to migrate the CATIA V5 Machining data to DELMIA V6. You will learn how to connect to a DELMIA V6 database and search for a PPRContext. 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"> - Use the DELMIA V6 Machining product to define a Machining Process - Create Tools, Holders, and Tool Assemblies - Define a Machining Operation - Generate a Numerical Control (NC) Output - Store and retrieve a Machining Process from the V6 database - Migrate CATIA V5 Machining objects to DELMIA V6
Prerequisites	Students attending this course must be experienced users of the CATIA V5 Machining product

DELMIA V5 to V6 Machining Transition (MTMT)

Available Online

Yes

DELMIA Work Instructions Planning Essentials (WKI)	
Course Code	DEL-en-WKI-F-V6R121
Available Releases	V6R2012 , V6R2012x
Duration	8 hours
Course Material	English
Level	Fundamental
Audience	Simulation Engineers, Process Planners, Manufacturing Engineers
Description	This course teaches you how to create work instructions that can be added to operations defined in the Assembly Experience or Manufacturing Systems Definition workbench. You will also learn to create work instruction catalogs.
Objectives	<p>Upon completion of this course you will be able to:</p> <ul style="list-style-type: none"> - Validate the product buildup - Create Work Instructions to operations - Modify Work Instructions - Preview defined Work Instructions
Prerequisites	Students attending this course should be familiar with DELMIA Process Planning, and DELMIA Live Assembly
Available Online	Yes