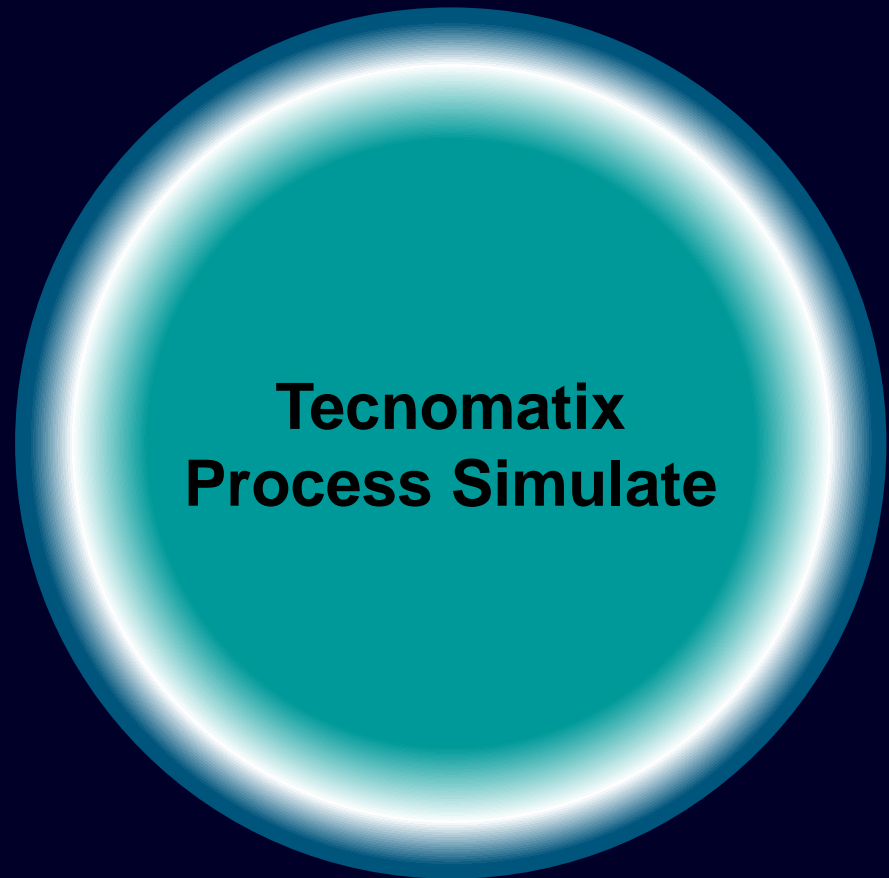


Xcelerator Academy Learning Maps

Your learning: At a Glance



Use our interactive learning maps as a guide to navigate through your content based upon your role then click on the icons throughout to learn more about your delivery options.



Select a role below



LEARN PROCESS SIMULATE ESSENTIALS

End user

New users are given the basic skills required to work with process simulation to digitalize manufacturing processes and layouts

LEARN ABOUT OBJECT FLOW SIMULATIONS

Digital Assembly Validation Engineer

Learn about performing Process Simulate object flow simulations to validate the assembly process of a product

LEARN ABOUT HUMAN REACH CHECKS, SIMULATIONS

Human Simulation Engineer or Ergonomist

Learn about performing Process Simulate Human reach checks, simulations, and reports to validate the assembly process of a product

LEARN ABOUT ROBOTICS REACH CHECKS, SIMULATIONS

Robot simulation Engineer

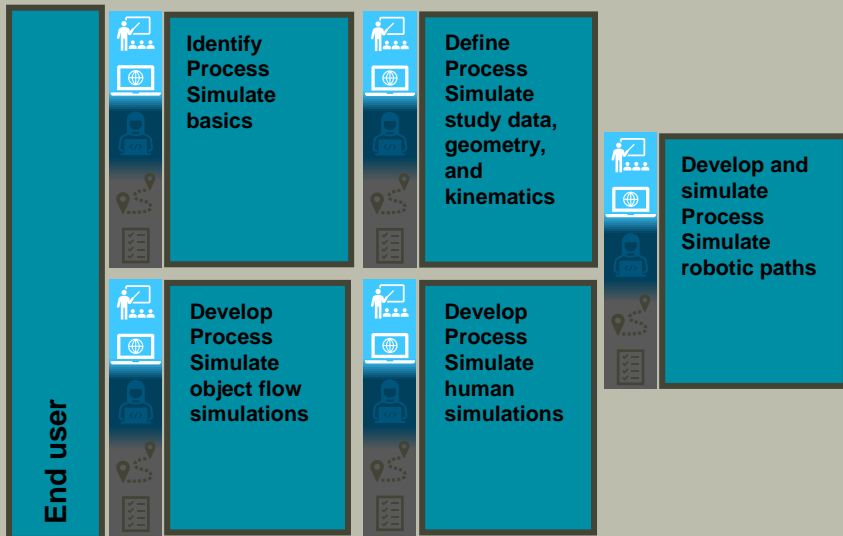
Learn about performing Process Simulate robotics reach checks, simulations, and off-line programming.

GET CERTIFIED

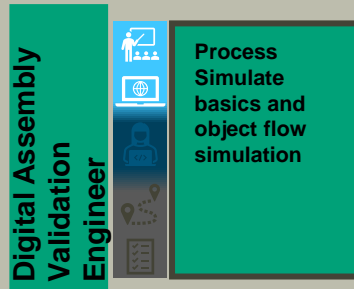
Tecnomatix Process Simulate Associate Certification

Choose your learning and take your exam to complete the Process Simulate Standalone Associate certification.

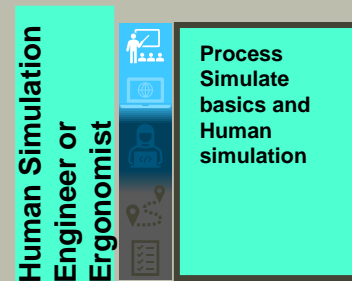
LEARN PROCESS SIMULATE ESSENTIALS



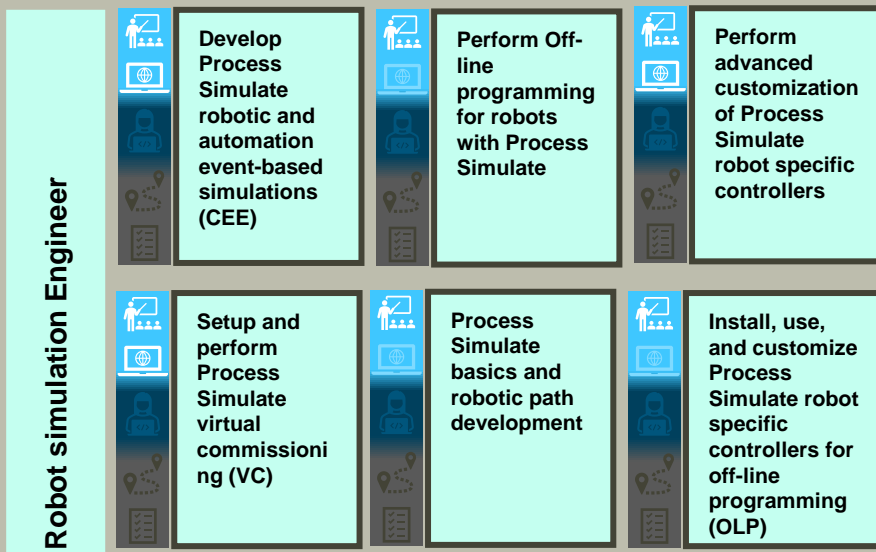
LEARN ABOUT OBJECT FLOW SIMULATIONS



LEARN ABOUT HUMAN REACH CHECKS, SIMULATIONS



LEARN ABOUT ROBOTICS REACH CHECKS, SIMULATIONS



Process Simulate Associate Certification

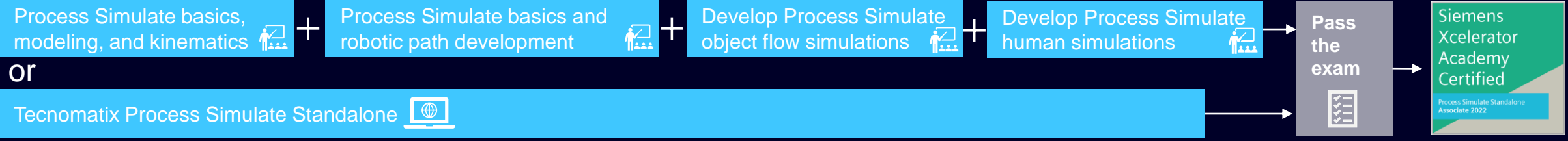
Process Simulate Standalone Associate 2022

[Click for detailed certification course list](#)

Instructor-led training	On-demand training library	Xcelerator Academy Membership	Learning Journey	Standalone Certification Exam	Optional
**Virtual lab environment included in offer		Add-on vLab hours available for purchase	**Virtual lab environment included in offer		



Complete Course List: Tecnomatix Process Simulate Standalone Associate Certification



Identify Process Simulate basics

In this learning path, you identify the Process Simulate basic methodology and perform basic tasks in the Graphic Viewer and tree views.

Identify Process Simulate tasks

- Basic tasks including modeling and kinematics
- Human Simulation
- Human operations simulation - PLC control programming
- Part and resource flow simulation

PREVIEW CHAPTER
Identify the Process Simulate basic methodology and purpose

- Identify basic concepts for PS on eMS Standalone
- Identify Process Simulate basics
- Identify basic tools in Process Simulate environment (part 1)
- Identify basic tools in Process Simulate environment (part 2)
- Identify the placement commands
- Use kinematics to create operations
- Detect collisions

Develop and simulate Process Simulate robotic paths

In this learning path, you develop robotic paths for spot welding, arc welding, painting, drilling/riveting, and other types of robot applications.

Identify discrete robotic applications used in this learning path

- Spot welding applications - For example:
 - Spot welding with the weld gun method
 - Spot welding with the contact method
 - Spot welding with the gun method
- Painting applications - For example:
 - Painting with the spray gun method
 - Painting with the brush method
- Drilling and riveting applications - For example:
 - Drilling
 - Riveting

PREVIEW CHAPTER
Identify basic robotics concepts

- Define part-in-tool robot spot welding paths
- Adjust welds in spot welding paths
- Define part-on-robot spot welding paths
- Search for spot weld guns and use servo guns
- Define robotic drilling and riveting paths
- Define robotic material handling paths
- Define robotic arc welding continuous feature paths
- Define robotic paint continuous feature paths
- Define other robotic continuous feature paths
- Test robot reach and set basic robotic path attributes
- Add via locations to avoid collisions
- Identify other path modification and creation tools
- Identify location attributes for multiple robot interlocking
- Create swept volumes, interference zones, and events
- Examine other robotic path modification tools and techniques

Develop Process Simulate object flow simulations

In this learning path, you manually and automatically develop part and resource object flow path simulations.

Conduct Assembly Simulation for Virtual Process Verification

- Configure the assembly process simulation for the virtual process verification
- Define the assembly process simulation parameters
- Define the assembly process simulation resources
- Define the assembly process simulation locations
- Define the assembly process simulation operations
- Define the assembly process simulation events
- Define the assembly process simulation constraints
- Define the assembly process simulation simulation options
- Define the assembly process simulation simulation results

PREVIEW CHAPTER
Identify object flow path basics

- Create object flow simulative operations
- Create locations in object flow simulative operations
- Modify locations in object flow simulative operations
- Create sequences of object flow simulative operations
- Use presentation mode, event creation, and movie manager
- Simulate hand tools and virtual reality

Develop Process Simulate human simulations

In this learning path, you develop human reach studies, human simulations, assign time to operations, and perform ergonomic evaluations of worker tasks.

Human overview

- Identify the human model and human simulation options
- Create basic human operations
- Create human operations using Task Simulation Builder (TSB)
- Create human operations using other automatic posture tools (part 1)
- Create human operations using other automatic posture tools (part 2)
- Create and view ergonomic reports (part 1)
- Create and view ergonomic reports (part 2)
- Assign a duration to human operations
- Identify other Process Simulate human tools
- Use traditional techniques to create human simulations (part 1)
- Use traditional techniques to create human simulations (part 2)
- Examine features related to body and hand motion capture

PREVIEW CHAPTER
Identify human task simulation basics

- Identify the human model and human simulation options
- Create basic human operations
- Create human operations using Task Simulation Builder (TSB)
- Create human operations using other automatic posture tools (part 1)
- Create human operations using other automatic posture tools (part 2)
- Create and view ergonomic reports (part 1)
- Create and view ergonomic reports (part 2)
- Assign a duration to human operations
- Identify other Process Simulate human tools
- Use traditional techniques to create human simulations (part 1)
- Use traditional techniques to create human simulations (part 2)
- Examine features related to body and hand motion capture

Define Process Simulate study data, geometry, and kinematics

In this learning path, you define snapshots, markups, sections, cables, component geometry and component kinematics.

Identify the snapshot editor commands

- Snapshot Editor toolbar
- New Snapshot
- Remove Snapshot
- Edit Snapshot
- Update Snapshot
- Apply Snapshot

PREVIEW CHAPTER
Create and use snapshots and the Markup Editor

- Create snapshots, markups, notes, and pictures
- Create sections and define cables
- Import component geometry
- Model geometry in Process Simulate
- Define basic kinematics in Process Simulate
- Define basic kinematic cranks and robotic tools
- Define basic robot kinematics
- Define advanced kinematics, rails, gantries, and positioners
- Define advanced kinematic functions, compound equipment, and motion parameter files

