



Siemens Xcelerator Academy Certification Exam Guide



SIEMENS

Siemens Xcelerator Academy Certifications

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Siemens Xcelerator Academy

What does Siemens Xcelerator Academy offer?

Siemens Xcelerator Academy is the one place where all learners – software users, developers, implementers, customers, partners, and Siemens professionals – go to develop technical understanding of the use and application of software products the Siemens Xcelerator portfolio. We have tapped into the world's largest customer success organization to leverage knowledge and experience while our learning experts create engaging learning to meet various needs of our ever-evolving portfolio. Multiple learning options are available to prepare all learners to be successful with Siemens Digital Industries Software products.

Siemens Xcelerator Academy offerings include the following:

- *Learning Events*, which support onboarding your core team, through solutions like instructor-led training (virtual or in-person) and on-demand training
- *Learning Memberships*, which support users' performance through ongoing software usage
- *Learning Programs*, which support enterprises in identifying training needs, assess target groups and architect the right set of solutions to ramp-up towards an educated workforce and support performance whenever needed
- Certification can be achieved through consuming a Learning Event, Learning Membership or Learning Program in combination with certification requirements

End users utilize CAD, CAE, and analysis tools including, but not limited to:

- NX Design
- Additive Manufacturing
- NX CAM
- Simcenter 3D
- Simcenter STAR-CCM+

Developer roles may include:

- Mendix
- Insights Hub

Implementers design and execute the installation and configuration of enterprise backbone systems, including:

- Teamcenter
- Opcenter

What is Siemens Xcelerator Academy Certification?

Siemens Xcelerator Academy Certification is the certification program for most Siemens Digital Industries Software products. Software product coverage includes NX, Teamcenter, Mendix, Insights Hub, Simcenter STAR-CCM+, Simcenter 3D, Opcenter, Capital, and others.

Achievement of certification is a clear indication of user proficiency. Therefore, Siemens Xcelerator Academy certification exams are designed with the same detail and diligence that product courseware receives. Updates are made frequently in alignment with new software releases and feature enhancement.

To protect the integrity of the program and of your certification achievement, exams are timed and proctored, either in-person or via AI-based proctoring. In addition, there is a system check conducted at the beginning of the exam to ensure the integrity of the testing environment.

Retakes are permitted for certification exams, but each attempt must be purchased. Certification exams must be attempted by the named user within **one year** (12-months) from date of purchase.

What should I do before my exam?

Preparing for the exams

Studying and practicing are essential for you to be as successful as possible with your certification exam attempts. Working through the courseware is the best way to do well on the certification exams. Certifications are designed as part of a sequenced curriculum, available as a learning map to guide you through the content. However, there is always the option to take the exam as you wish, outside of the suggested curriculum. In that case, we highly encourage you to review the list of major topic areas that are part of the exam and prepare yourself accordingly. Please see the [Siemens Xcelerator Academy](#) website for available certification exams and courseware.

Your exam should be taken in a quiet and comfortable place free from distractions. Make sure to find a suitable spot in your workplace or home several days or more before you attempt the certification. Plan for 15 minutes of log in time before your certification and two to three hours of examination time, depending on the exam. If you live with others, let them know you are unavailable during this time, except in an emergency.

In the event you are unable to complete the exam for an emergency, submit an appeal request in writing (paper or email) including your name, email, title of the certification, certification registration ID, date attempted, very brief description of emergency, and documented proof.

Certification Prerequisite

Please note that obtaining the Associate certification is the starting point and a mandatory prerequisite before attempting the Professional certification. Candidates are responsible for fulfilling this requirement before requesting the next level certification..

What should I expect when taking my exam?

Certification Exam Environment

Siemens Xcelerator Academy certifications are conducted online via a laptop or desktop computer in a restricted and controlled AI-proctored testing environment. This is done to ensure that the test taker attempts the exam without outside assistance and is the one who receives the certificate when the certification exam attempt is successful.

Operating systems may be Windows 10 and Mac OS X. Supported browsers include Google Chrome and Microsoft Edge. Shortly before your examination attempt, make sure to **reboot your computer**. After rebooting, open only the email you received from Siemens and/or Mettl containing the details of your exam and a web browser, preferably Chrome.

During the exam, the Mettl testing environment will monitor your performance and behavior through your webcam and will record any disruption to the testing environment. Therefore, make sure to **turn off all but one monitor** for the duration of your exam attempt. In addition to allowing only one monitor, the certification environment will also track disruptions from the test page. One disruption to the test will result in a warning. If this occurs, you will see a red window appear with a warning message. After the second disruption, a message appears stating **“This will be the final warning.”** Any subsequent disruptions to the testing environment will result in the certification exam being closed with the **attempt logged as a failure**.

Before you begin your Exam

Technical and hardware requirements

Using online AI proctoring, certification exams can be delivered easily and securely. Siemens Xcelerator Academy has partnered with Mercer Mettl to deliver proctored exams online, enabling you to earn certification anytime – from your home or office location.

Prior to beginning an exam attempt, **all the following** are required:

1. Computer (laptop or desktop) with a working webcam
2. Stable internet connection (wired connection is recommended)
3. Internet browser such as Google Chrome or Microsoft Edge (Google Chrome is recommended)

NOTE: The most common causes of technical issues reported are (a) testing on computers with firewall restrictions, and (b) unreliable internet connections. Firewall restrictions can occasionally prevent online proctoring from functioning correctly. Similarly, unstable internet connections (e.g., wireless networks, hotels, VPNs, and mobile hotspots) can interrupt connectivity.

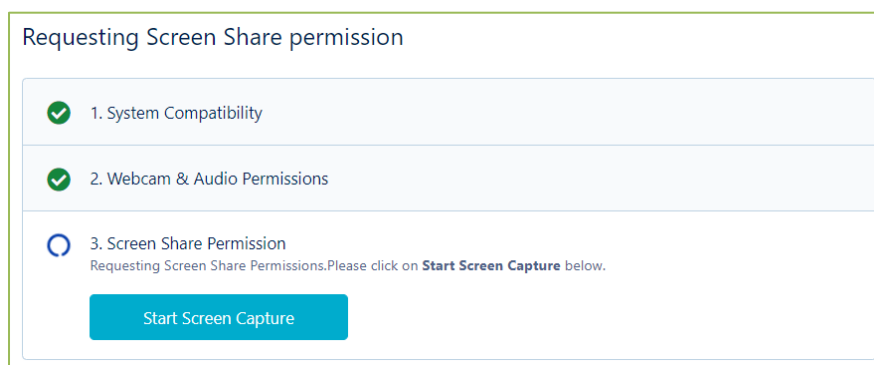
Please review and acquaint yourself with these [additional technical requirements](#) to ensure that your system is compatible with our online testing platform.

NOTE: Only proceed when you are ready to begin your exam.

Before your exam, it is recommended that you take care of any personal needs like phone calls, emails, bathroom needs, etc. It is also recommended that you have a meal an hour or two before your examination.

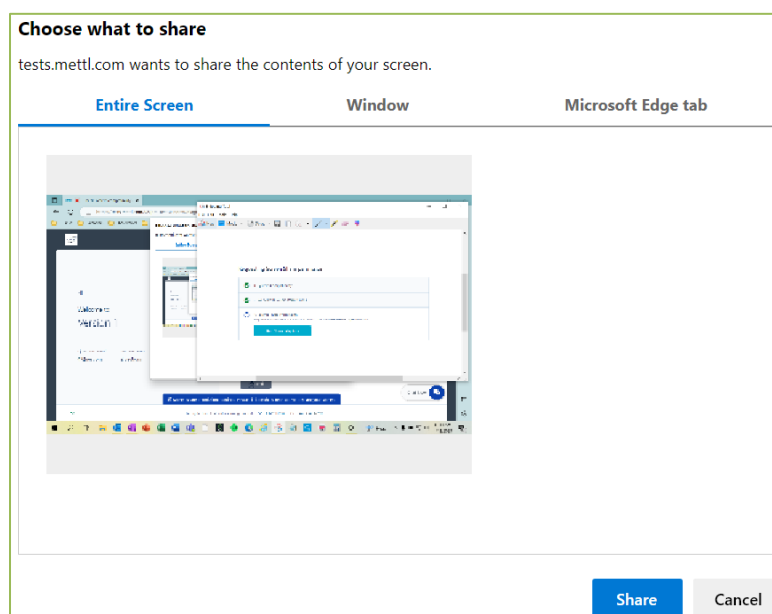
Click the “Proceed” button to enter the certification environment.

You will be taken automatically through a System Compatibility check, followed by a request to allow for webcam permission. Ensure that you have closed all extra screens, browser windows, and applications. You will see the following view:

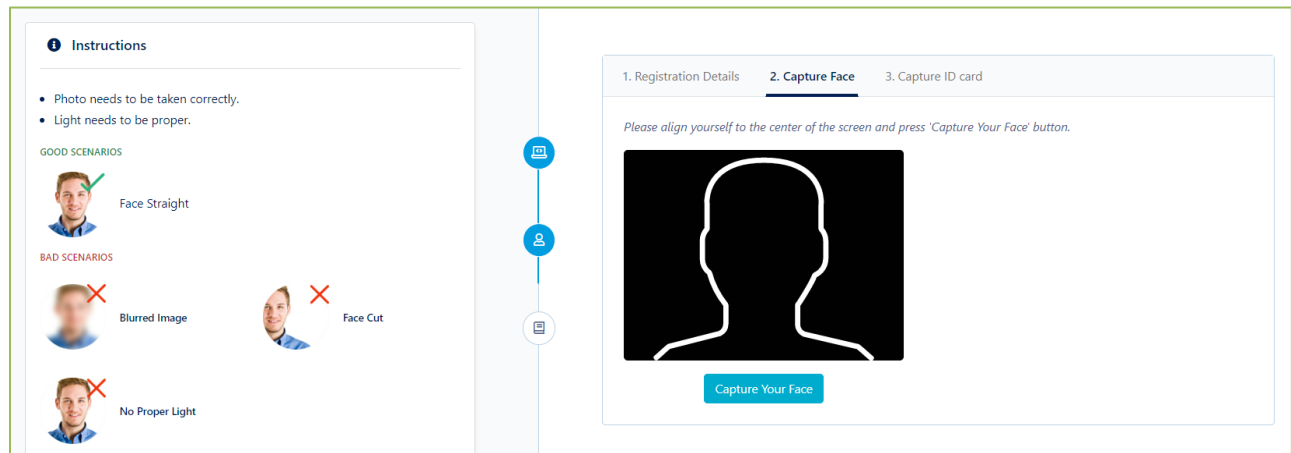


Click “Start Screen Capture”.

In the following window, select your screen and click “**Share**”.

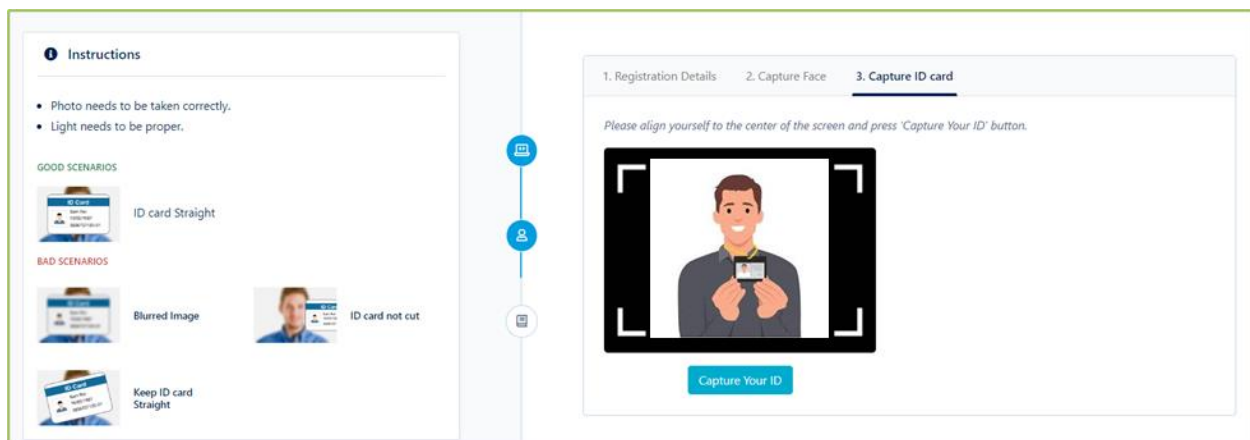


Under **NO** circumstances should you click “Stop Sharing”. Next, you will be asked to look into the webcam, position your face in the image capture tool, and **click “Capture your face”**. Make sure you are fully visible in the camera.



Next, you will need to provide your registration ID. Working professionals can use their organization's employee ID card, and students can use their university/college/school ID card. You may also **write or print out** your registration details on a sheet of paper – ensure that your name, email address, a recent passport-sized photo, and the order ID are all clearly visible. When prompted during pre-exam validation, hold your ID card/paper up to the webcam and **click “Capture your ID”**.

DO NOT USE a license, passport, credit card, or any other card with personal details.



This completes the system check. Once you are ready to proceed to the exam, **click “Start Test”**.

At the end of the exam, you will be immediately notified of the result. If the attempt was successful, you will get access to your soft certificate, stating the name of the certification you have achieved and the date you passed the exam. Feel free to share your certification designation with others (including on social media), in its exact form to celebrate your success. No modifications of any kind are permitted to the certificate. Violation of this requirement will result in instant revocation of the certification designation with no recourse for refund.

Exam behavior guidelines and requirements

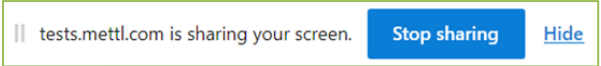
You will be attempting a proctored exam, and you will be required to provide access to your webcam and microphone for the duration of the test.

Before and during your exam, **DO**:

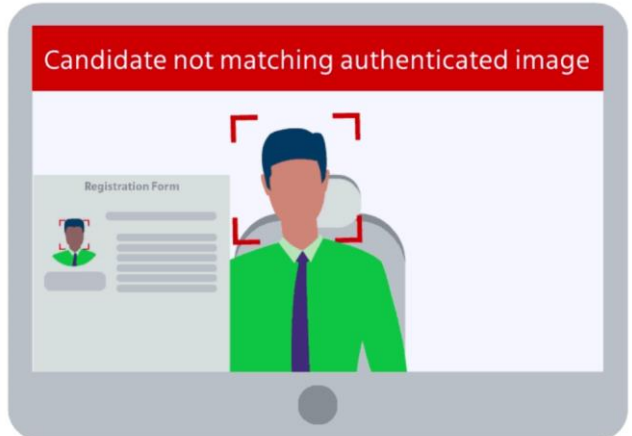
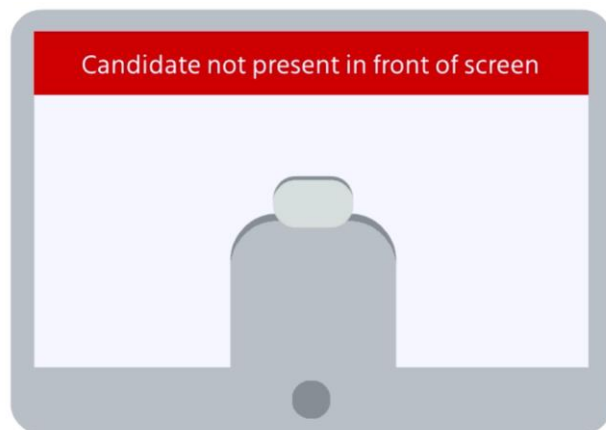
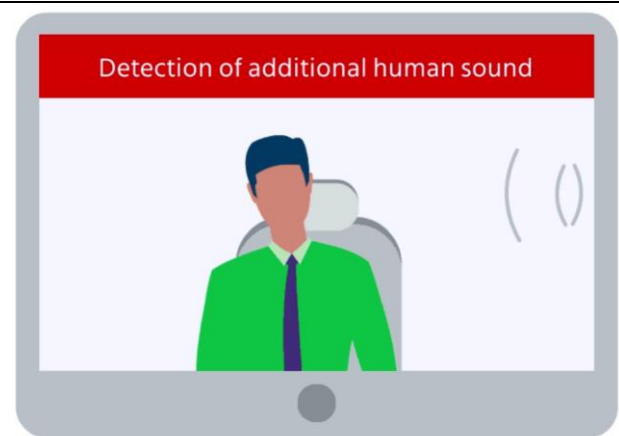
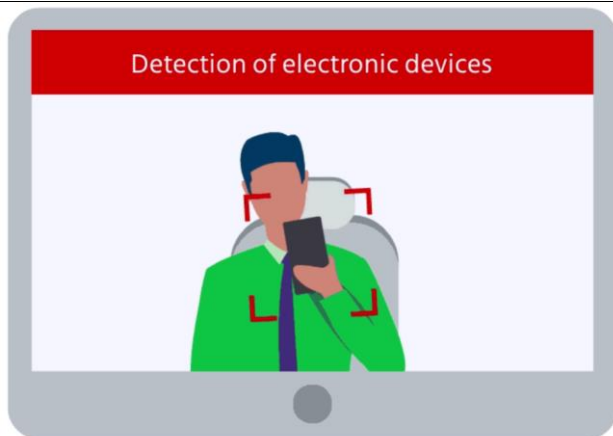
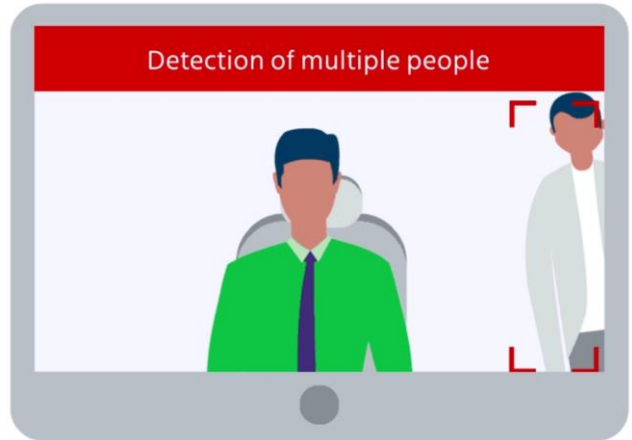
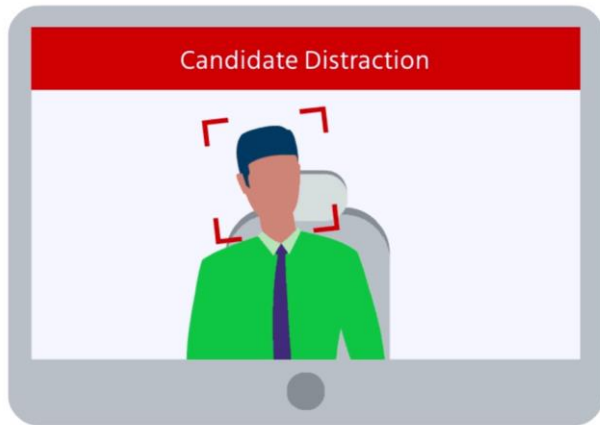
1. Check that your computer meets all System Requirements.
2. Avoid any items, people, or obstacles placed behind candidate for duration of the test.
3. Ensure that Screen Share and Webcam are turned on throughout the test. If either are switched off, the exam will stop immediately.
4. Carefully read and follow the instructions that appear on your screen at the start of the test.
5. Note that your scores may be invalidated and/or negatively impacted based on the detection of any of the above activities during your test.
6. Close any communication applications, such as Zoom, Microsoft Teams, or Outlook BEFORE starting your test.

Before and during your exam, **DO NOT**:

1. Use any Electronic Devices. The platform will track and automatically detect the presence of any mobile phones, tablets, etc. in your workspace.
2. Allow any distractions. Distractions (e.g., not looking at the screen) will be flagged.
3. Navigate away from the test window. Unwarranted use of Navigation Controls is prohibited.
4. Allow others to be present during your exam. Any audio, object behind candidate, or person detected will be flagged.
5. Click the “Stop Sharing” button once the exam begins. Doing so will stop your ongoing exam and your attempt will be counted.



NOTE: Once you are in the exam environment, the system will give two warnings where it detects you have navigated to a different window or received any pop-up notifications related to another application on your computer.



Exam Violations

The following circumstances are considered violations of certification examination rules and result in termination of the exam, your registration being suspended or canceled, and any exam fees paid forfeited.

1. Cheating defined as a deliberate or involuntary act to improve your exam conditions to obtain an inappropriate assessment result, including:
 - i. Any sort of oral or electronic communication with a person or third parties within testing environment
 - ii. Any use of unauthorized material like books or notepad, mobile phones, exam dump or brain dump publications in any form
 - iii. Any doubtful movement during the period of your exam like reading questions aloud, placing any object over webcam, or moving out of webcam view etc.
 - iv. Use of headphones / earbuds, or any other type of hearing equipment, aside from required hearing aids
 - v. Use of any software or optical character recognition (OCR) tools, or having more than one display monitor
2. Any content viewed or accessed is Siemens intellectual property – reproducing, communicating, or transmitting certification exam content in any form for any purpose is strictly prohibited and a serious violation of terms & conditions, including:
 - i. Copying or pasting content using any software or OCR tools
 - ii. Trying to recall test questions or test answers from the proctored exam
 - iii. Sharing or discussing any or all test questions or test answers with anyone
 - iv. Taking picture using mobile phones or any other device
3. Candidates trying to register and retake exam under a different name / testing ID, or any other means will be termed as cheating. This is a direct violation of our retake policy and exam rules and will result in a denied or revoked certification.

Any violation of these rules will result in your exam results be nullified and you being **disqualified** from taking any other Siemens Xcelerator Academy exams **for six months**.

What should I expect after taking my exam?

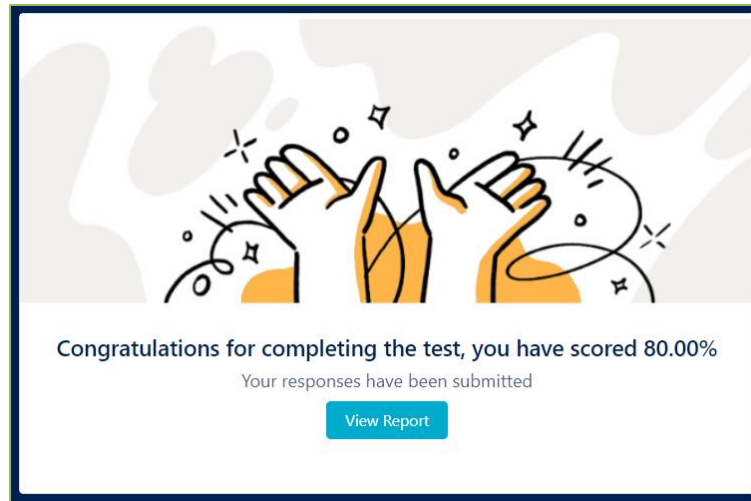
Passing Score

The intention of certification is to provide qualified individuals with the ability to demonstrate their knowledge and skills. Therefore, Siemens Xcelerator Academy certifications are designed with easy, medium, and difficult questions based on the goal of measuring fundamental technical knowledge about the use of the software product. Each question in the exam is weighted equally with all others and there is only one correct answer for each question.

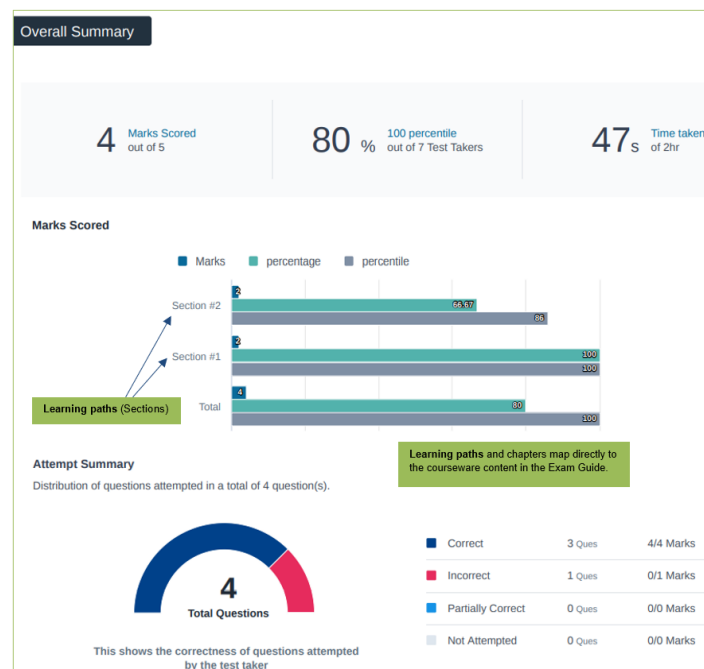
Since the Associate & Professional level certification is a closed exam, test takers must be well-prepared for their attempt and be able to recall a large amount of information during the exam period. Test takers who provide correct answers for 68.00% or more of the questions have passed the exam and will receive the certificate. Exam scores below 68.00% do not result in certification.

How to interpret your Feedback/Score Report

Once the certification exam concludes, each test taker is eligible to receive a Feedback/Score Report on their exam.



This report provides a comprehensive overview of subject knowledge, broken down by skill-based chapters.



Your feedback/score report provides information on:

- Exam pass or fail status
- Numerical score for exam performance in all attempted sections
- Overall performance on each knowledge area assessed

Before attempting an exam re-take, use your report to help focus your studying on the sections where you scored lowest. As a reminder, a minimum of 68% is required for a successful passing grade.

NOTE: Your report will not identify missed questions, only overall section performance.

Exam Retake Policy (For Customers and Academic users)

If a candidate does not achieve a passing score on the first attempt of an exam, they will be eligible to repurchase and retake the exam. Candidates are allowed up to three exam attempts within a 6-month period, with each attempt requiring a separate purchase. Additionally, there is a mandatory cooling period of 21 days between attempts, which must be observed before scheduling the next exam.

Attempt 2	Attempt 3	Attempt 4
21 days after attempt 1	21 days after attempt 2	21 days after attempt 3

Retakes will not be permitted to those wanting to improve their score on an already successful passing attempt.

If a candidate experiences any of the below errors, the candidate can write to Siemens for an exception:

- a. Major failure due to internet connectivity issue
- b. Major failure due to computer hardware failure
- c. Working labs not functioning appropriately or crashed

Celebrate your Achievement

Digital Certificates

Successful certification exam attempts will result in immediate delivery of the certificate associated with the exam. Once the test taker has successfully completed the certification exam, the certification designation is available to be shared to inform others of their achievement. This certification designation comes in the form of text and an icon on a PDF. Certificates MAY NOT be modified in any way.

Digital Badges

Digital badges are comprised of an image and metadata uniquely linked to you for a skill that you have earned. They are awarded upon successful completion of any of our certification exams. Once earned, a digital badge can be shared with a simple click to anywhere you like - including various social media platforms.

What are the benefits of a Digital Badge?

Digital badges celebrate your success for demonstrating skills on Siemens Xcelerator products. They also help you to:

- Build credibility in the market
- Receive recognition for acquiring new skills
- Drive engagement within the community
- Provide a certification plan along your career journey
- Connect to a network of professionals on social channels and email

How do I accept my Digital Badge?

Upon successfully passing your certification exam with a minimum score of 68%, you will receive an automated email from the Credly platform, our digital badging service. This email will contain a link to accept your badge and create a free Credly account if you have not already done so.



What is Credly?

Credly is an end-to-end solution for issuing and managing digital credentials. This platform hosts the largest and most-connected digital badging network. Siemens has partnered with Credly to provide digital credentials to individuals worldwide. These credentials reward learners and transform skills into verified, shareable digital badges. After achieving a passing exam score, candidate details are shared with Credly for administration of the corresponding digital badge.

Digital Badge Support

For questions about Siemens Xcelerator Academy badges, contact [Siemens Xcelerator Academy Support](#).

For Credly account-related or platform support, [submit a request](#) with Credly.

Please note that digital badges are processed in batch on a weekly basis and may take up to five (5) business days to be issued.

Accessing Certification Records

Certification exam results are kept for a minimum of three years in the certification platform, unless otherwise specified by the account owner, i.e., the test taker, who may elect to request record and/or account deletion at any time. Test results will be available to the test taker in their learning and/or certification platform accounts during the time in which their account is active.

Deleting Certification Accounts and Records

If you wish for your account and/or certification records to be deleted, place your request in the Support or Contact area of the Siemens Xcelerator Academy web page. Include your name, your email address, and the certification exam(s) you have taken. Requests will be addressed as quickly as possible but may take up to eight (8) weeks to fully process.

Certification at the Next Level

After achieving certification at one level, to keep your knowledge and skill as current as possible, it is recommended that you study and practice for the next level. Please visit the [Siemens Xcelerator Academy](#) website for information about certifications at the Associate and Professional levels.

Frequently Asked Questions

Why should I get a certification?

A company's most valued resource is their workforce. Investing in workforce capability, your capability, is as critical to business and organizational success as investing in technology and infrastructure. Using designed learning and certification programs is the best way to ensure that you and your colleagues are fully prepared to utilize all the features of Siemens software to make your products more competitive and more profitable.

Certifications allow confirmation of achieved knowledge & skill, which is clear evidence of user proficiency. Further, fully enabled and proficient software users require less time to accomplish tasks and do so more accurately, thus reducing costs and increasing the bottom line. Certification provides credibility, enhances trust, and serves as a reference point for all who successfully achieve certificate levels.

What certifications are available?

The Siemens Xcelerator Academy team designs and develops courseware for the robust and evolving Siemens Xcelerator™ product portfolio, with each product area containing many different levels and application areas.

Certifications are currently available for Mendix, Insights Hub, NX, Teamcenter, and Simcenter. Certifications are in development for many additional products within the Siemens Xcelerator™ product portfolio. Please see the comprehensive information about certifications on the [Siemens Xcelerator Academy](#) website.

What are the certification levels?

The certification program enables role-based certifications to validate knowledge, skills, and expertise in the use of Siemens software products at the **Associate** and **Professional** levels.

Note: Certification exams for the Professional level are in development.

How are certification exams conducted?

Certification exams for Associate and Professional levels are conducted in a secure, AI-proctored online platform. Please see the **Certification Exam Environment** section in this document for a detailed description.

What should I study and practice before attempting a certification exam?

Certification exams are based on curricula designed and developed by Siemens for software users, developers, and implementers to be successful in their roles. Therefore, certification exams are always tied directly to a set of courseware. Thus, studying the courseware

associated with the certification exam is the most successful way to prepare. Please see the [Siemens Xcelerator Academy](#) website for information on courseware architecture.

How long is the certification valid?

Associate certifications from successfully completed certification exams do not expire, whereas Professional certifications have a validity of 3 years. However, you are encouraged to achieve the highest levels of certifications available to you and to continue studying and practicing as each new versions of the software products are released.

How do I buy certification attempts?

Certification offerings are available in combination with courseware as well as stand-alone. Please contact your learning services engagement manager or visit the [Siemens Xcelerator Academy](#) website for more information.

What learning maps are available for certification?

Please see the [Siemens Xcelerator Academy](#) website for information on courseware architecture.

Siemens Xcelerator Academy Certification Planning

More than six months before comprehensive certification exam:

- Select courseware aligned with role/usage of the SW features
- Create study plan based on the recommended courseware for the certification exam of interest
- Begin studying or prepare to begin on a specific date

Three to six months before comprehensive certification exam:

- Courseware for the targeted role is selected by the learner and made available through Siemens Xcelerator Academy memberships and/or instructor led training
- Study plan, including anticipated dates for the practice and certification exams, is finalized and ready to follow
- Courseware study begins

One month before comprehensive certification exam:

- Most of the courseware study is complete
- Knowledge checks and assessments at the end of the chapters have been reviewed
- Feedback from knowledge checks and assessments were (or will be) used to focus on chapters/topics for which additional study is needed

One week before comprehensive certification exam:

- All courseware study is complete
- Candidate logged into their certification exam account and reviewed the system requirements

Up to a week before the comprehensive certification exam:

- Location where exam will be attempted (office or quiet place with no distractions) has been selected and is prepared accordingly. Others in building, home, office, dorm, etc. are informed that during the exam you may not be interrupted except for an emergency

One hour to immediately before comprehensive certification exam:

- Check system requirements
- Use the bathroom
- Have only a bottle of water present
- Remove all distractions, including turning off your personal mobile device(s) and closing out all applications
- Ensure any others around understand that you may not be interrupted except in an emergency

Six months after successful completion of certification exam:

- Prepare for the next level of certification by following these steps in order from the beginning

Appendix: Available Certification Exams (As of 2024-05-31)

<i>Product</i>	<i>Version</i>	<i>Level</i>	<i>Page</i>
<i>Additive Manufacturing</i>	1953	Associate	20
<i>Capital Essentials</i>	2207	Associate	20
<i>Capital Harness Designer</i>	2207	Associate	20
<i>Capital Logic Designer</i>	2207	Associate	20
<i>Capital Systems Engineering</i>	2020	Associate	21
<i>Insights Hub</i>	2023.1	Associate	21
<i>NX CAM</i>	2212	Associate	21
<i>NX Design</i>	2312	Associate	22
<i>NX Design</i>	2206, 2212	Professional	22
<i>Opcenter Execution Core</i>	2304	Associate	22
<i>Opcenter Execution Discrete</i>	2301	Associate	23
<i>Opcenter Execution Process</i>	2301	Associate	23
<i>Opcenter RD&L</i>	2204	Associate	23
<i>Plant Simulation</i>	17	Associate	23
<i>Polarion</i>	21.1	Associate	24
<i>Polarion</i>	21.1	Professional	24
<i>Process Simulate Standalone</i>	17	Associate	24
<i>Process Simulate on Teamcenter</i>	17	Associate	25
<i>Simcenter 3D CAE</i>	2206	Associate	26
<i>Simcenter 3D CAE</i>	2206, 2212	Professional	27
<i>Simcenter Amesim</i>	2021.2	Associate	27
<i>Simcenter FloEFD</i>	2022.1	Associate	27
<i>Simcenter FLOTHERM</i>	2021.2	Associate	28
<i>Simcenter FLOTHERM XT</i>	2021.2	Associate	28
<i>Simcenter STAR-CCM+</i>	2206	Associate	28
<i>Simcenter STAR-CCM+</i>		Professional	
<i>Teamcenter Quality</i>	5.1	Associate	29
<i>Teamcenter (X) Product Cost Management</i>	9	Associate	
<i>Teamcenter / Teamcenter X</i>	14.1/6.1	Associate	29
<i>Teamcenter</i>	14.1/6.1	Professional	30

Additive Manufacturing Associate Certification

Section Name	Topics
Section 1: Introduction to Additive Manufacturing	Introduction to Additive Manufacturing Processes Additive Manufacturing in NX Additive Manufacturing and the Product Development Lifecycle Additive Manufacturing Tradeoffs and Strategy
Section 2: Component Design for Additive Manufacturing	Useful Modeling Techniques for AM Designing with Lattices Using Scanned Geometry Generative Design and Topology Optimization
Section 3: Polygon Modeling and Reverse Engineering	Introduction to Polygon Modeling Polygon Modeling Task Environment Polygon Modeling Ribbon Bar Reverse Engineering

Capital Essentials Associate Certification

Topics	% of the exam
Section 1: Capital Component Manager Essentials	73% of exam
Section 2: Capital Symbol Designer Essentials	27% of exam
See available Learning Map	

Capital Harness Designer Associate Certification

Section Name	Topics
Section 1: Capital Harness Designer Introduction	Getting Started with Capital Harness Designer Harness Design Creation Harness Design Changes Backshells and Modular Connectors
Section 2: Harness Essentials	Harness Synchronization Harness Processing Composite Harnesses Harness Styling Reports for Harness Designs
Section 3: Harness – Other Features	MCAD Processing Additional Functionality Capital HarnessXC to NX Integration Capital HarnessXC – Creating a Harness from 3D MCAD Data

Capital Logic Designer Associate Certification

Section Name	Topics
Section 1: Capital Logic – Getting Started	Getting Started – Basics Creating Multiple Device Connectors Pin Management Diagram Editing
Section 2: Capital Logic – Advanced	Complexity Advanced Wiring Library Parts Main Lab Concurrency

Capital Systems Engineering Associate Certification

Topics	% of the exam
Section 1: Capital Systems	65% of exam
Section 2: Capital Devices	35% of exam

Insights Hub Associate Certification

Section Name	Topics
Section 1: Getting Started with Insights Hub	Discovering the Industrial Internet of Things Exploring the Insights Hub Ecosystem Introducing the Insights Hub Portfolio Revealing the Potential of Insights Hub
Section 2: Exploring Essentials of Insights Hub	Exploring Insights Hub Fundamentals Exploring MindAccess Plans Creating the IoT Data Model for Insights Hub Managing a Insights Hub Tenant
Section 3: Overview of MindConnect Elements	Overview of MindConnect Elements
Section 3: Inspecting Insights Hub Security	Introduction to Insights Hub Security MindConnect Security Insights Hub System Security Insights Hub App Security
Section 3: Developing Insights Hub Applications	Exploring Cloud Foundry Developing Applications for Insights Hub Using the Asset Management Service Using Time Series, Aggregate and Event Management APIs
Section 3: Creating Custom Agents with MindConnect API	Introducing MindConnect API Getting Ready for MindConnect API Creating a Custom Agent with MindConnect API Exchanging Data with MindConnect API Using the Diagnostic Service

NX CAM Associate Certification

Section Name	Topics
Section 1: Basic Design in NX	Add Finishing Details Analyze existing assemblies Basic part edits using synchronous Bottom-up assembly building Create a basic part Create a basic part drawing Create cylindrical parts using sketches NX User Interface Organize and display part models Simple changes and part interrogation
Section 2: Managing NC Programming Data	Cavity Milling Create and structure NC program documents Create and structure an NC program Examine a manufacturing part Study Manufacturing process and create manufacturing setup
Section 3: Machining a Prismatic Part	Fixed Axis Contouring Planar Milling
Section 4: Fixed and Multi-Axis Milling	Fixed-axis contouring Plunge milling and z-level milling 4 and 5-axis machining and 5-axis Z-level Profiling walls with a variable axis Variable axis contour milling

Section 5: Turbomachinery and other Multi-Axis Options	Associative Machining Geometry Hole Machining In process Workpiece transfer Probing and Generic Motion Sequential Milling and Non-cutting Moves Turbomachinery Milling
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NX Design Associate Certification

Section Name	Topics
Section 1: NX Basic Design	NX User Interface Create a basic part Organize and display part models Create cylindrical parts using sketches Add Finishing Details Simple changes and part interrogation Basic part edits using synchronous Analyze existing assemblies Bottom-up assembly building Create a basic part drawing
Section 2: Product Design Fundamentals	Establish design intent Analyze the design and make changes Create parts with constant wall thickness Sweep Geometry Building parts with duplicated geometry Create symmetric models
Section 3: Molded and Cast Part Design	Create molded parts Build basic parts using surfaces Build robust models Data translators Edit non-parametric models
Section 4: Loading and Working with Assemblies	Manage Assemblies Configure an Assembly Create Reusable Components View component interaction using sequencing
Section 5: Design in Context of an Assembly	Top-down modeling Link geometry between related parts Create expression links between parts Revise assemblies

NX Design Professional Certification

Topics	% of the exam
Section 1: Surface Modeling Processes	34% of exam
Section 2: Documenting with Drafting	18% of exam
Section 3: Model Based Definition using PMI	18% of exam
Section 4: Construction geometry curves and HD3D	30% of exam
See available Learning Map	

Opcenter Execution Core Associate Certification

Section Name	Topics
Section 1: Introduction to Opcenter Execution Core	Navigating the Portal Interface Controlling Login and Security Exploring Portal Studio Developer
Section 2:	Creating the Factory Model

Configuring the Factory Model	Configuring WIP Tracking Products and Containers Modeling the Workflow Executing Shop Floor Transactions Accessing information within Opcenter Execution Core
Section 3: Utilizing Features	Controlling Material Issue in Opcenter Configuring and Executing Electronic Procedures Managing Documents within Opcenter Core Performing Data Collection Creating a Bill of Process Using Process Time Enforcement
Section 4: Managing Resources	Introduction to Resource Management Configuring Resource Management
Section 5: Installation Core	Administration Connect MOM Configuration Data Migration Licensing Security Administration Software Updates System Architecture and Flow Troubleshooting

Opcenter Execution Discrete Associate Certification

NOTE: This is a two-part exam. Both parts must be completed to achieve a successful score.

	Section Name	Topics
Part 1	Section 1: Discrete Essentials & Admin	Development Essentials Backend
	Section 2: Discrete Customization	Foundation Apps Frontend
Part 2	Section 3: Discrete Extensibility	Extensibility for Discrete Use Case

Opcenter Execution Process Associate Certification

NOTE: This is a two-part exam. Both parts must be completed to achieve a successful score.

	Section Name	Topics
Part 1	Section 1: Discrete Essentials & Admin	Development Essentials Backend
	Section 2: Discrete Customization	Foundation Apps Frontend
Part 2	Section 3: Process Extensibility	Extensibility for Process Use Case

Opcenter RD&L Associate Certification

Topics	% of the exam
Section 1: Opcenter RD&L Basics	30% of exam
Section 2: Opcenter RD&L Essentials	70% of exam

Plant Simulation Associate Certification

Section Name	Topics
Section 1: Introduction to Simulation Studies	Overview of Plant Simulation Explore the Plant Simulation graphical user interface
Section 2: Basic Simulation Study	Define a target analyze a simple system and acquire data Create a simple model Validate the throughput of a simple model Prepare to create a new model from the previous model Prepare to create a new model from the previous model

	Create a more detailed model to produce a better result Implement basic objects to analyze results Create a hierarchical model
Section 3: Include modular components	Identify inherited objects and attributes Navigate and change 3D viewer visualization Simulate machine processing time and failures with distributions Material flow objects with a capacity greater than one
Section 4: Include Conveyors and workers	Model length-oriented objects Setup time assembly and dismantle objects Create user-defined attributes and data tables Use basic workers and work shifts
Section 5: Include presentation collateral	Create experiments and custom reports Gather time cost and power consumption statistics Add extruded plates point clouds and backgrounds
Section 6: Include custom logic	Use the Method Debugger and anonymous identifiers Run a method during a simulation Set attribute values with methods Access data in tables lists and global variables Use distribution functions use operators and convert data Create conditional methods and access the contents of an object Model transport systems and setup time Save and load data into a Plant Simulation table
Section 7: Setup 3D objects	Setup and use cameras Import and create a library of 3D objects Create MU animation and animatable objects Customize 3D objects with methods Use advanced worker techniques

Polarion Associate Certification

Section 1: Polarion Fundamentals	Analyzing your data with Live Reports How to use projects to organize your data Managing your LiveDocs Managing your Work Items Navigating the Polarion user interface Planning and tracking your development activities Support parallel development activities with Collections Tracking test case execution via Test Runs
Section 2: Polarion Requirements Management	Managing System Requirements Specifications V-Model Concepts Managing Software Requirements Managing Risks Managing Changes Building Software Managing Variants
Section 3: Polarion Test Management	Test Management Concepts Test Planning Test Analysis and Design
Section 4: Polarion Administration	Polarion architecture Polarion implementation

Polarion Professional Certification

Topics	% of the exam
Section 1: Test Management	17% of exam
Section 2: Reporting	23% of exam
Section 3: Integrations	28% of exam
Section 4: Administration	32% of exam
See available Learning Map	

Process Simulate Standalone Associate Certification

Section 1: Identify Process Simulate basics	Identify basic concepts for PS on eMS Standalone Identify Process Simulate basics Identify basic tools in Process Simulate environment Identify the placement commands Use kinematics to create operations Detect collisions
Section 2: Develop and simulate robotic paths	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
Section 3: Develop object flow simulations	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
Section 4: Develop human simulations	Identify the human model and human simulation options Create basic human operations Create human operations using Task Simulation Builder Create human operations using other automatic posture tools Create and view ergonomic reports Assign a duration to human operations Examine features related to body and hand motion capture Use traditional techniques to create human simulations 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
Section 5: Define study, data, geometry	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

Process Simulate on Teamcenter Associate Certification

Section 1: Getting started with Process Simulate	Identify Process Simulate basics PS on TC Identify basics for Process Simulate on Teamcenter users TC Manufacturing Process Planner
Section 2: Process Simulate on Teamcenter	Create and use collaboration context objects Introduction to MPP and MBM Manage and validate studies Use the basic Teamcenter environment
Section 3: Identify Process Simulate Basics	Detect collisions Identify Process Simulate basics Identify basic concepts for PS on eMS Standalone Identify basic tools in Process Simulate environment Use kinematics to create operations
Section 4: Develop and simulate robotic paths	Adjust welds in spot welding paths Define part-in-tool robot spot welding paths Define part-on-robot spot welding paths Define robotic drilling and riveting paths Define robotic material handling paths Search for spot weld guns and use servo guns Define robotic arc welding continuous feature paths Define robotic paint 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
Section 5: Develop object flow simulations	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
Section 6: Develop human simulations	Identify the human model and human simulation options Create basic human operations Create human operations using Task Simulation Builder Create human operations using other automatic posture tools Create and view ergonomic reports Assign a duration to human operations Identify other Process Simulate human tools Use traditional techniques to create human simulations
Section 7: Define study, data, geometry	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

Simcenter 3D CAE Associate Certification

Section 1: Fundamentals of Using Pre/Post	Analyzing Models Managing Analysis Data Using Pre/Post Features
Section 2:	Preparing Geometry for Meshing

Preparing the Model for Analysis	Meshing the Model Modeling Connections Modeling Assemblies Applying Boundary Conditions Defining Variable Conditions and Properties Modeling Symmetry Checking the Model and Resolving Problems
Section 3: Solving the Model	Setting Up and Running a Structural Analysis Introduction to Structural Analysis Workflows Introduction to Nonlinear Analysis Workflows
Section 4: Reviewing Analysis Results	Displaying Results in Post Views Manipulating Results Data Graphing Results Saving and Restoring Views Generating Reports

Simcenter 3D CAE Professional Certification

Topics	% of the exam
Section 1: FE Model Correlation and Update	32% of exam
Section 2: Processes and Solutions	35% of exam
Section 3: Response & Rotor Dynamics	33% of exam
See available Learning Map	

Simcenter Amesim Associate Certification

Section 1: Getting Started with Simcenter Amesim	Simcenter Amesim Overview Simcenter Amesim Workflow Data Import and Useful Features Supercomponents Interface Overview Additional Features & Application Example
Section 2: Intro to Hydraulic System Simulation	Hydraulic Libraries Overview Hydraulic Fluids Properties Hydraulic Lines and Components Hydraulic System Modeling Additional Features - Hydraulics
Section 3: Design/Simulate Thermal Fluid Systems	Thermal System Modeling Thermal Hydraulic Modeling Pneumatic System Modeling HEX Modeling
Section 4: Reviewing Analysis Results	Displaying Results in Post Views Manipulating Results Data Graphing Results Saving and Restoring Views Generating Reports
Section 5: Processes and Solutions	Adaptive Meshing Super elements Geometry Optimization Simcenter Nastran Design Optimization Simcenter Nastran Topology Optimization Introduction to Thermal Analysis

Simcenter FloEFD Associate Certification

Section 1: FloEFD for Solid Edge/NX/Creo/Standalone/ CATIA	Introduction to CFD Boundary Conditions and Intro to Goals Meshing Post Processing Parametric Study Thermal Component Models Using EDA Data Package Creator Cooling Systems and Calibration
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Simcenter FLOTHERM Associate Certification

Section 1: FLOTHERM Introduction	Introduction to FLOTHERM Basics of FLOTHERM Studies Gridding and Convergence FloEDA Bridge Post Processing FloMCAD Bridge SmartParts Command Center Thermal Radiation Component Modeling and T3Ster
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Simcenter FLOTHERM XT Associate Certification

Section 1: FLOTHERM XT Introduction	Introduction to FLOTHERM XT FLOTHERM XT Projects SmartParts and Geometry Handling FLOTHERM PACK and TCMs PCB Modeling and Creation Importing EDA Data Meshing Post Processing Radiation Parametric Study
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Simcenter STAR-CCM+ Associate Certification

Section 1: Fundamentals of Simcenter STAR-CCM+	Advanced analysis Analyzing data Considering the mesh setup Effective planning Moving with reference frames Preparing imported geometry Reaching a solution Refining the mesh Setting up the physics Stepping into the Workflow Workflow details
Section 2: Data Analysis in Simcenter STAR-CCM+	Accessing solution data Color and light effects Fundamental plotting Playing screens Volume rendering
Section 3: Efficient Workflows in	Geometry preparation Meshing setup

Simcenter STAR-CCM+	Physics and values Reporting Simulation operations Templates
Section 4: Heat Transfer in Simcenter STAR-CCM+	Advanced heat transfer Heat transfer Heat transfer coefficients Solar radiation Thermal radiation Workflow heat transfer

Simcenter STAR-CCM+ Professional Certification

Topics	% of the exam
Section 1: Heat transfer	40% of exam
Section 2: Turbulence modeling	31% of exam
Section 3: Multiphase modeling	29% of exam
See available Learning Map	

Teamcenter Quality Associate Certification

Section 1: Introduction to Active Workspace	Find content using search Introduction to Active Workspace Viewing your data files Working with data and relations
Section 2: Manage your product structure	Analyze product structures Classify product data including eClass TcQ 5.1 AW Create and edit product structures Open and view product structures Search for classified objects
Section 3: Manage your release process	Approve and Release Data Initiate a Workflow Managing Workflow Task Assignment
Section 4: Teamcenter Quality Applications	AWC Teamcenter Quality Fundamentals Authoring TCQ TCQ Reporting
Section 5: Quality Issue Management	Closure D8 and Creation of an 8D report Introduction and monitoring of improvement actions within Problem Solving D5 D6 D7 Introduction to Problem Solving Perform a root cause analysis within the Problem Solving D4 Quality Issue Management
Section 6: Failure Modes and Effects Analysis	FMEA Failure analysis FMEA Functional analysis FMEA result documentation FMEA risk analysis and optimization Introduction to FMEA and FMEA Structure analysis
Section 7: APQ and QAM	APQP Checklist APQP Quality Action Management Introduction to APQP
Section 8: Control and Inspection Plan	Create a Control Plan Introduction to Control and Inspection Plan Manage a Control and Inspection Plan - Advanced use cases

Teamcenter (X) Product Cost Management Associate Certification

Topics	% of the exam
Section 1: Product Cost management Basics	20% of exam
Section 2: Product Cost Management Essentials	80% of exam

Teamcenter / Teamcenter X Associate Certification

Section 1: Getting started with Teamcenter	<ul style="list-style-type: none"> Identify starting tasks for an author/designer Initiate a workflow for an author/designer Approve and release data for an author/designer Develop and release product designs Get started with BOMs Import Excel and Word files Work with data and relations
Section 2: Teamcenter Essentials	<ul style="list-style-type: none"> Analyze the product structures Create and edit the product structures Open and view the product structures Identify additional basic abilities in Active Workspace Identify additional search techniques to find content Managing workflow task assignments Viewing visualization data Work with standard workflows
Section 3: Teamcenter Installation	<ul style="list-style-type: none"> Get started with Teamcenter Install Teamcenter databases Perform Teamcenter preinstallation tasks Install Teamcenter using Deployment Center (DC) Install the BMIDE Perform other important DC tasks Upgrade a Teamcenter install Deploy software in DC Identify and install DC Install and configure a J2EE 4tier architecture Install and configure a NET 4tier architecture Install the server pool manager Manage Teamcenter environment with DC Manage the DC repository Configure additional FMS Install TC patches Install TC store and forward Install the dispatcher Perform a 4tier mass client deploy Perform TC install maintenance Identify basic aspects of an Active Workspace installation Install AW client components Install AW server extensions Install indexing components to enable search in AW Install visualization components Install microservices Perform indexing component maintenance
Section 4: Teamcenter Configuration	<ul style="list-style-type: none"> Create and manage business objects Extend data model Identify BMIDE fundamentals Managing business object properties Configure table columns and workspaces in AW Configure tiles in AW

	Manage groups, roles, and users in AW BMIDE constraints Manage preferences in AW Identify TC administration tasks that apply to you Manage AW stylesheets in XRT Editor Administer LOVs Administer rule extensions Configuring icons Configuring operation extensions Deploying packages and updates Running BMIDE reports
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Teamcenter Professional Certification

Topics	% of the exam
Section 1: Teamcenter Active Workspace	30% of exam
Section 2: Teamcenter Administration and Customization	40% of exam
Section 3: Teamcenter Visualization	30% of exam
See available Learning Map	

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