Learning Paths for 3DEXPERIENCE 2021x

On the 3DEXPERIENCE platform, the role you are assigned enables apps, this can include process and automation apps, fluids, structures or other types of simulation.

To learn to use the apps enabled by your role, check the list of courses below. These courses are available as instructor led training via Instructor-Led Training and Education Partner Training.

These courses are also available on-demand on 3DEXPERIENCE Edu Space. For help with online learning contact learning.support@3ds.com.

For a given role of interest, notice the REQUIRED courses should be taken in the order listed, and courses labeled OPTIONAL can be taken in any order after that.

For help getting started using the platform, please see 3DEXPERIENCE platform on cloud support: Onboarding.

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Automation, Optimization and PLM

Simulation Collaborator (SEI)
1. Getting Started with Automation and Optimization - REQUIRED
2. Performance Trade-off Essentials - REQUIRED
3. Physics Simulation Review Essentials - OPTIONAL

Simulation Process Engineer (SPF)
1. Getting Started with Automation and Optimization - REQUIRED
2. Process Composer Essentials - REQUIRED
3. Performance Study Essentials - REQUIRED
4. Process Experience Studio Essentials - REQUIRED
5. Simulation Companion Essentials - REQUIRED
6. Performance Trade-off Essentials - OPTIONAL
7. Physics Simulation Review Essentials - OPTIONAL

Multidisciplinary Optimization Engineer (MDO)
1. Getting Started with Automation and Optimization - REQUIRED
2. Process Composer Essentials – REQUIRED
3. Results Analytics Essentials - REQUIRED
4. Performance Study Essentials - REQUIRED
5. Process Experience Studio Essentials - REQUIRED
6. Simulation Companion Essentials - REQUIRED
7. Performance Trade-off Essentials - OPTIONAL
8. Physics Simulation Review Essentials - OPTIONAL

All Physics Analyst (PXK)
1. Getting Started with Physics Simulation - REQUIRED
2. Abaqus Study Essentials – REQUIRED
3. Connector for Abaqus/CAE Essentials - REQUIRED
4. Connector for CST Essentials – REQUIRED
5. Connector for Simpack Essentials – REQUIRED
6. Performance Trade-off Essentials – OPTIONAL
7. Physics Simulation Review Essentials - OPTIONAL
Electromagnetics

Electromagnetic Engineer (EMC-OC)

1. Getting Started with Physics Simulation - REQUIRED
2. Introduction to CST Studio Suite – REQUIRED
3. Connector for CST Essentials – REQUIRED
4. CST Studio Suite - Microwave and Antenna – REQUIRED
5. CST Studio Suite - Low Frequency – REQUIRED
6. Physics Simulation Review Essentials - OPTIONAL
7. Performance Trade-off Essentials – OPTIONAL
8. CST Studio Suite - Multiphysics – OPTIONAL
9. CST Studio Suite - Charged Particle Applications – OPTIONAL

Fluids

Fluid Dynamics Engineer (FMK)

1. Getting Started with Physics Simulation - REQUIRED
2. Fluid Dynamics Engineer Essentials - REQUIRED
3. Physics Results Explorer Essentials - OPTIONAL

Plastic Injection Engineer (IME)

1. Getting Started with Physics Simulation - REQUIRED
2. SIMULIA Plastic Injection Essentials – REQUIRED

Thermal Engineer (FMK)

1. Getting Started with Physics Simulation - REQUIRED
2. Fluid Dynamics Engineer Essentials - REQUIRED
3. Physics Results Explorer Essentials - OPTIONAL
Structures

Structural Designer (SRD)
1. Getting Started with Physics Simulation - REQUIRED
2. Linear Structural Validation Essentials - REQUIRED

Structural Engineer (SLL)
1. Getting Started with Physics Simulation - REQUIRED
2. Structural Model Creation Essentials - REQUIRED
3. Linear Structural Scenario Creation Essentials - REQUIRED
4. Physics Results Explorer Essentials - OPTIONAL

Structural Performance Engineer (SFO)
1. Getting Started with Physics Simulation - REQUIRED
2. Structural Performance Engineer Essentials – REQUIRED*
3. Physics Results Explorer Essentials - OPTIONAL
4. Model Assembly Design Essentials – OPTIONAL

*The alternative to taking Structural Performance Engineer Essentials in the learning path above is completing Structural Model Creation Essentials and then Structural Scenario Creation Essentials.

Structural Mechanics Engineer (SSU)
1. Getting Started with Physics Simulation - REQUIRED
2. Structural Mechanics Engineer Essentials – REQUIRED*
3. Parametric Design Study Essentials - REQUIRED
4. Physics Results Explorer Essentials - OPTIONAL
5. Material Calibration Essentials - OPTIONAL
6. Mechanical Scenario Creation Essentials: Linear Dynamics – OPTIONAL
7. Model Assembly Design Essentials – OPTIONAL

*The alternative to taking Structural Mechanics Engineer Essentials in the learning path above is completing Structural Model Creation Essentials and then Mechanical Scenario Creation Essentials.
Structural Analysis Engineer (SYE), Durability and Mechanics Engineer (FGM) or Structural and Durability Engineer (FHM)

1. Getting Started with Physics Simulation - REQUIRED
2. Structural Mechanics Engineer Essentials – REQUIRED*
3. Parametric Design Study Essentials - REQUIRED
4. Durability Engineer Essentials - REQUIRED
5. Physics Results Explorer Essentials - OPTIONAL
6. Material Calibration Essentials - OPTIONAL
7. Mechanical Scenario Creation Essentials: Linear Dynamics – OPTIONAL
8. Model Assembly Design Essentials - OPTIONAL
9. Simulation Model Design Essentials - OPTIONAL

*The alternative to taking Structural Mechanics Engineer Essentials in the learning path above is completing Structural Model Creation Essentials and then Mechanical Scenario Creation Essentials.

Durability Performance Engineer (FGP)

1. Getting Started with Physics Simulation - REQUIRED
2. Structural Performance Engineer Essentials – REQUIRED*
3. Durability Engineer Essentials - REQUIRED
4. Physics Results Explorer Essentials - OPTIONAL
5. Model Assembly Design Essentials – OPTIONAL

*The alternative to taking Structural Performance Engineer Essentials in the learning path above is completing Structural Model Creation Essentials and then Structural Scenario Creation Essentials.

Additive Manufacturing Analysis Engineer (AMF)

1. Getting Started with Physics Simulation - REQUIRED
2. Structural Mechanics Engineer Essentials – REQUIRED*
3. Additive Manufacturing Scenario Essentials - REQUIRED
4. Physics Results Explorer Essentials - OPTIONAL
5. Material Calibration Essentials - OPTIONAL
6. Mechanical Scenario Creation Essentials: Linear Dynamics – OPTIONAL

*The alternative to taking Structural Mechanics Engineer Essentials in the learning path above is completing Structural Model Creation Essentials and then Mechanical Scenario Creation Essentials.
Composite Structures Analysis Engineer (SNE)

1. Getting Started with Physics Simulation - REQUIRED
2. Structural Mechanics Engineer Essentials – REQUIRED*
3. Composite Structures Simulation Essentials – REQUIRED
4. Durability Engineer Essentials - REQUIRED
5. Physics Results Explorer Essentials - OPTIONAL
6. Material Calibration Essentials - OPTIONAL
7. Mechanical Scenario Creation Essentials: Linear Dynamics – OPTIONAL
8. Model Assembly Design Essentials - OPTIONAL
9. Simulation Model Design Essentials – OPTIONAL

*The alternative to taking Structural Mechanics Engineer Essentials in the learning path above is completing Structural Model Creation Essentials and then Mechanical Scenario Creation Essentials.

Product and Packaging Analysis Engineer (PAE)

1. Getting Started with Physics Simulation - REQUIRED
2. Structural Mechanics Engineer Essentials – REQUIRED*
3. Composite Structures Simulation Essentials – REQUIRED
4. Physics Results Explorer Essentials - OPTIONAL
5. Material Calibration Essentials - OPTIONAL
6. Mechanical Scenario Creation Essentials: Linear Dynamics – OPTIONAL
7. Model Assembly Design Essentials - OPTIONAL
8. Simulation Model Design Essentials – OPTIONAL

*The alternative to taking Structural Mechanics Engineer Essentials in the learning path above is completing Structural Model Creation Essentials and then Mechanical Scenario Creation Essentials.

Composite Structures Performance Engineer (CYE)

1. Getting Started with Physics Simulation - REQUIRED
2. Structural Performance Engineer Essentials – REQUIRED*
3. Composite Structures Simulation Essentials – REQUIRED
4. Physics Results Explorer Essentials - OPTIONAL
5. Material Calibration Essentials - OPTIONAL
6. Model Assembly Design Essentials – OPTIONAL

*The alternative to taking Structural Performance Engineer Essentials in the learning path above is completing Structural Model Creation Essentials and then Structural Scenario Creation Essentials.
Simulation Model Build Engineer (SBE)

1. Getting Started with Physics Simulation - REQUIRED
2. Structural Model Creation Essentials - REQUIRED
3. Structural Model Creation Essentials: Geometry and Meshing - REQUIRED
4. Model Assembly Design Essentials - REQUIRED

Material Calibration Specialist (MAS)

1. Getting Started with Physics Simulation - REQUIRED
2. SIMULIA Material Calibration Essentials – REQUIRED

Industry Specific Roles

Aerospace Cabin Thermal Engineer (CTEAD)

1. Getting Started with Physics Simulation - REQUIRED
2. Fluid Dynamics Engineer Essentials - REQUIRED
3. Physics Results Explorer Essentials - OPTIONAL

Aerospace HVAC and ECS Engineer (AHEEA)

1. Getting Started with Physics Simulation - REQUIRED
2. Fluid Dynamics Engineer Essentials - REQUIRED
3. Process Composer Essentials - REQUIRED
4. Performance Study Essentials - REQUIRED
5. Process Experience Studio Essentials - REQUIRED
6. Simulation Companion Essentials - REQUIRED
7. Structural Model Creation Essentials - REQUIRED
8. Mechanical Scenario Creation Essentials - REQUIRED
9. Multiscale Experiment Creation Essentials - REQUIRED
10. Physics Results Explorer Essentials - OPTIONAL
11. Structural Model Creation Essentials: Geometry and Meshing - OPTIONAL
12. Performance Trade-off Essentials – OPTIONAL
Perform as Composite Structures Engineer for Marine and Offshore (CSEMO)

1. Getting Started with Physics Simulation - REQUIRED
2. Structural Performance Engineer Essentials – REQUIRED*
3. Composite Structures Simulation Essentials – REQUIRED
4. Physics Results Explorer Essentials – OPTIONAL

*The alternative to taking Structural Performance Engineer Essentials in the learning path above is completing Structural Model Creation Essentials and then Structural Scenario Creation Essentials.

Steel Structures Engineer for Marine and Offshore (SSEMO)

1. Getting Started with Physics Simulation - REQUIRED
2. Structural Performance Engineer Essentials – REQUIRED*
3. Physics Results Explorer Essentials – OPTIONAL

*The alternative to taking Structural Performance Engineer Essentials in the learning path above is completing Structural Model Creation Essentials and then Structural Scenario Creation Essentials.

Tire Analysis Engineer (TIREI)

1. Getting Started with Physics Simulation - REQUIRED
2. Structural Mechanics Engineer Essentials – REQUIRED*
3. Composite Structures Simulation Essentials – REQUIRED
4. Results Analytics Essentials – REQUIRED
5. Process Composer Essentials - REQUIRED
6. Physics Results Explorer Essentials - OPTIONAL
7. Material Calibration Essentials - OPTIONAL
8. Mechanical Scenario Creation Essentials: Linear Dynamics – OPTIONAL
9. Performance Study Essentials - OPTIONAL
10. Process Experience Studio Essentials - OPTIONAL
11. Simulation Companion Essentials - REQUIRED
12. Performance Trade-off Essentials - OPTIONAL
14. Model Assembly Design Essentials – OPTIONAL

*The alternative to taking Structural Mechanics Engineer Essentials in the learning path above is completing Structural Model Creation Essentials and then Mechanical Scenario Creation Essentials.
Systems

Multidiscipline Performance Engineer (MCK)

1. Getting Started with Physics Simulation - REQUIRED
2. Structural Mechanics Engineer Essentials – REQUIRED*
3. Fluid Dynamics Engineer Essentials - REQUIRED
4. Multiscale Experiment Creation Essentials - REQUIRED
5. Physics Results Explorer Essentials - OPTIONAL
6. Structural Model Creation Essentials: Geometry and Meshing - OPTIONAL
7. Practice CATIA Dymola Behavior Modeling – OPTIONAL

*The alternative to taking Structural Mechanics Engineer Essentials in the learning path above is completing Structural Model Creation Essentials and then Mechanical Scenario Creation Essentials.

CATIA Roles

Composite Structures Engineer for Marine and Offshore (CSEMO)

1. Structural Model Creation Essentials - REQUIRED
2. Structural Scenario Creation Essentials - REQUIRED
3. Composite Structures Simulation Essentials – REQUIRED
4. Physics Results Explorer Essentials - OPTIONAL
5. Practice CATIA Assembly Design - OPTIONAL
6. Practice CATIA Engineering Templates Reuse – OPTIONAL
7. Practice CATIA Part Design - OPTIONAL
8. Practice CATIA Generative Shape Design – OPTIONAL
9. Practice CATIA Quality Rules Reuse – OPTIONAL