Users attending this course must have mechanical design experience and must have completed the SOLIDWORKS Essentials course.

Course details:

This course will help you to learn robust production assembly modeling in SOLIDWORKS. Learn how to troubleshoot assemblies and make your assemblies as efficient as possible. See how SmartMates and assembly configurations can make your life easier as you work with your production assemblies. Techniques like top-down modeling, in-context features, and assembly structure editing are explained in detail as you learn how to make some of the most powerful SOLIDWORKS features work for you.

Lesson 1: Top-Down Assembly Modelling

- Top-down assembly modelling
- Stages in the process
- Building virtual parts
- Building parts in an assembly
- In-context features
- Propagating changes
- Saving virtual parts as external
- External references
- Breaking external references
- Removing external references

Lesson 2: Assembly Features and Smart Fasteners

- Stages in the process
- Assembly features
- Smart fasteners

Lesson 3: Advanced Mate Techniques

- Adding mate references
- Design library parts
- Capture mate references

- Smart components
- Summary: inserting and mating components
- Multiple mate mode
- Using copy with mates
- Mate options

Lesson 4: Using Configurations with Assemblies

- Using configurations with assemblies
- Stages in the process
- Component patterns
- Configuration properties
- Using configure component
- Creating configurations manually
- Configuration publisher

Lesson 5: Display States and Appearances

- Display states
- Bulk selection tools
- Advanced select
- Envelopes
- Appearances, materials and scenes

Lesson 6: Assembly Editing

- Assembly editing
- Editing activities

- Replacing and modifying components
- Troubleshooting an assembly
- Replacing components using save as
- Mirroring components
- Hole alignment
- Controlling dimensions in an assembly
- Sensors

Lesson 7: Layout-based Assembly Design

- Layout-based assembly design
- Key topics
- Blocks
- Inserting blocks
- Creating a part from a block

Lesson 8: Large Assemblies

- Large assemblies
- Lightweight components
- Large assembly mode
- Selective open with hide
- Using SpeedPak
- Defeature
- Using configurations with large assemblies
- Modifying the structure of an assembly
- Assembly visualisation
- Tips for faster assemblies
- Drawing considerations

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