

## Flexible Modeling using Creo Parametric 3.0

### Overview

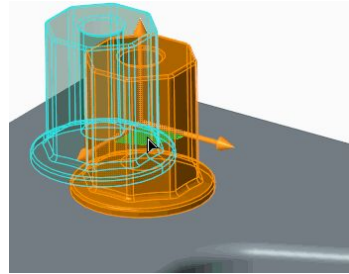
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Course Code TRN-4511-T

Course Length 1 Day

In this course, you will learn how to use Flexible Modeling tools to edit existing geometry on parametric models. The Flexible Modeling process typically involves initially selecting model surfaces, then refining the selected surface set using smart selection tools, and finally modifying the selected geometry by applying transformation tools, patterning tools, or symmetry tools.

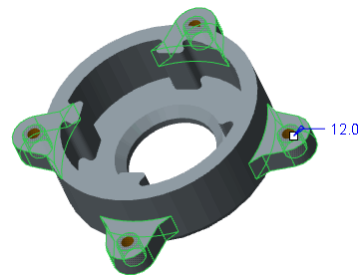
At the end of each module, you will complete a set of review questions to reinforce critical topics from that module. At the end of the course, you will complete a course assessment in Pro/FICIENCY intended to evaluate your understanding of the course as a whole.



### Course Objectives

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- Understand Flexible Modeling basics
- Apply shape surface selection
- Perform flexible move operations on geometry
- Perform flexible transform operations on geometry
- Use the various transform options
- Attach and remove geometry
- Understand and recognize how the system handles rounds and chamfers
- Create and recognize patterns and symmetry, and propagate changes



## Prerequisites

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- Introduction to Creo Parametric 3.0 or equivalent experience

## Audience

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- This course is intended for design engineers, mechanical designers, and industrial designers. People in related roles will also benefit from taking this course.
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## Agenda

### Day 1

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|        |   |                                   |
|--------|---|-----------------------------------|
| Module | 1 | Introduction to Flexible Modeling |
| Module | 2 | Shape Surface Selection           |
| Module | 3 | Flexible Move                     |
| Module | 4 | Flexible Transforms               |
| Module | 5 | Transform Options                 |
| Module | 6 | Attaching and Removing Geometry   |
| Module | 7 | Rounds and Chamfers               |
| Module | 8 | Patterns and Symmetry             |

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## Course Content

### Module 1. Introduction to Flexible Modeling

- i. Understanding Flexible Modeling
- ii. Understanding the Flexible Modeling User Interface
- iii. The Flexible Modeling Process

*Knowledge Check Questions*

### Module 2. Shape Surface Selection

- i. Using the Selection Filter
- ii. Using the Shape Selection Workflow
- iii. Applying Boss Selections
- iv. Applying Cut Selections
- v. Applying Round and Chamfer Selections
- vi. Leveraging Geometry Rules
- vii. Combining Selection References

*Knowledge Check Questions*

### Module 3. Flexible Move

- i. Applying Flexible Move using the Dragger
- ii. Applying Flexible Move by Dimension
- iii. Moving Geometry with Multiple Steps
- iv. Applying Flexible Move using Constraints
- v. Moving Curves and Datums
- vi. Creating a Copy-Move
- vii. Attaching Moved Geometry

*Knowledge Check Questions*

### Module 4. Flexible Transforms

- i. Applying Flexible Offset
- ii. Modifying Analytic Geometry
- iii. Using Flexible Mirror
- iv. Applying Flexible Substitute

*Knowledge Check Questions*

### Module 5. Transform Options

- i. Managing Tangency
- ii. Recreating Round and Chamfer Geometry
- iii. Creating Side Surfaces
- iv. Extending and Intersecting Surfaces
- v. Specifying Bounding Edges
- vi. Maintaining Solution Topology
- vii. Splitting and Extending Surfaces

*Knowledge Check Questions*

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**Module 6. Attaching and Removing Geometry**

- i. Detaching Transformed Geometry
- ii. Attaching Geometry
- iii. Removing Geometry

*Knowledge Check Questions*

**Module 7. Rounds and Chamfers**

- i. Recognizing Rounds and Chamfers
- ii. Editing Rounds
- iii. Editing Chamfers
- iv. Editing Non-Circular Rounds

*Knowledge Check Questions*

**Module 8. Patterns and Symmetry**

- i. Creating Flexible Patterns
- ii. Recognizing Patterns and Propagating Changes
- iii. Recognizing Symmetry and Propagating Changes
- iv. Restricting Pattern Recognition

*Knowledge Check Questions*

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