

## Technical Education Services

### Autodesk Fusion 360: Introduction to Parametric Modeling Course Length: 1 day



The Autodesk Fusion 360™ Introduction to Parametric Modeling training course provides you with an understanding of the parametric design philosophy using the Autodesk Fusion 360 software. Through a hands-on, practice-intensive curriculum, you will learn the key skills and knowledge required to design models using the Autodesk Fusion 360 software.

#### Topics covered include:

- Understanding the Autodesk Fusion 360 interface
- Creating, constraining, and dimensioning 2D sketches
- Creating and editing solid 3D features
- Creating and using construction features
- Manipulating the feature history of a design
- Duplicating geometry in a design

#### Prerequisites:

- Basic computer skills

For the current course  
schedule and to register  
for this course:  
Web: [redstack.com.au](http://redstack.com.au)  
Phone: 1300 667 263



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### Autodesk Fusion 360: Introduction to Parametric Modeling

#### Introduction to Autodesk Fusion 360

- Identify the key areas of the Autodesk Fusion 360 interface.
- Create a new project for use in the Autodesk Fusion 360 software.
- Load files into an Autodesk Fusion 360 project.
- Open files in the Autodesk Fusion 360 software.
- Use the design orientation commands to pan, zoom, rotate, and view a design.
- Change the Visual Style, Environment, and Effects settings to customize the display of a design.

#### Creating the First Feature with Quick Shapes

- Identify and change the units for the design.
- Identify and locate the origin features of a new design.
- Create geometry using the Box, Cylinder, Sphere, Torus, and Coil quick shape modeling tools

#### Creating Sketched Geometry

- Describe the general workflow to create a new sketch in an Autodesk Fusion 360 design.
- Use the sketch entity types to create lines, splines, points, rectangles, circles, and arcs.
- Sketch entities so that the required dimensions and constraints are assigned as entities are sketched.
- Add dimensions to sketch entities.
- Assign constraints to a sketch to control the required relationships between sketch entities.
- Use a sketch to create extruded or revolved geometry in a design.

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### Sketched Secondary Features

- Create an extruded and revolved secondary feature.
- Create offset entities that reference existing features.
- Project geometry to create references between sketched entities and existing features.
- Create a shared version of an existing sketch so that it can be used again to create design geometry.

### Pick and Place Features

- Create constant, variable, chordal, and rule-based fillets in a design.
- Create chamfers in a design
- Create simple, counterbore, and countersink holes in a design

### Construction Features

- Create new construction planes, axes, and points in a design.
- Describe how using construction planes, axes, or points in a design can help you to create geometry that could not be created using the existing features or geometry.

### Additional Features and Operations

- Create a shell feature that removes faces and assigns uniform wall thickness to the remaining faces in a design.
- Use the Thread tool to add threaded geometry to faces in a design.

### Design and Display Manipulation

- Change the order of features in the BROWSER.
- Use the History Marker to change the order in which new features are added to a design.
- Temporarily remove a feature from being included as part of the design geometry.

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### Single Path Sweeps

- Create swept geometry using appropriate path and profile entities.
- Edit a Sweep feature.design.

### Loft Features

- Create a loft feature using appropriate profile and reference entities.
- Control the shape and weight of how lofted geometry transitions from adjacent solid geometry.

### Feature Duplication Tools

- Mirror faces, bodies, and features in a design.
- Create a rectangular pattern of geometry.
- Create a circular pattern of geometry.
- Create a pattern of geometry that follows a sketched path or adjacent edges.

### Drawing Basics

- Create a new drawing based on a drawing template.
- Identify and place view types on a drawing file to appropriately document model geometry.
- Delete and suppress drawing views.
- Edit drawing views to change the properties that were defined during view creation.
- Modify the title block and border of a drawing.

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### Detailing Drawings

- Create dimensions to detail a drawing view.
- Create annotations to detail a drawing, such as notes, centerlines, center marks, and symbols.
- Add a parts list to a drawing.
- Create balloons that identify the components in a drawing's parts list.
- Review and edit the style options for drawing annotations.
- Output a drawing to a .PDF or a .DWG file format.

### Appendix A: Outputting for 3D Printing

- Generate .STL files for 3D printing.

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### Cancellation Policy

The following cancellation policy shall apply to all training and consulting engagements including customised training solutions:

Redstack reserves the right to reschedule or cancel the date, time and location of its class at any time. In the event that a Training Class is cancelled by Redstack, Customer is entitled to a full refund. Redstack shall not be responsible for any other loss incurred by Customer as a result of a cancellation or reschedule.

For Customer cancellations when written notice is received (i) at least ten (10) business days in advance of the class, Customer is entitled to a full refund of its payment or reschedule enrolment, (ii) less than ten (10) business days, Customer shall not be entitled to a refund, but shall receive a class credit to be used within three (3) months of the date of the original class.

Student substitutions are acceptable with at least two (2) days prior notice to the class, provided substitution meets course prerequisites and is approved by Redstack

For all Training orders, cancellation notices must be submitted in writing. Redstack is not responsible for any error in the delivery of the email notice. In the event of any reschedule of any training or consulting services by Customer, Redstack will invoice Customer for all non-cancellable travel expenses.

For more information, contact us on 1300 667 263.