

## Technical Education Services

### Visual Programming With Autodesk Dynamo

Course Length: 2 days

Your introduction to Autodesk Dynamo provides a comprehensive guide to visual programming in Autodesk Dynamo Studio. Topics include working with computational geometry, best practices for rules-based design, cross-disciplinary programming applications, and more with the Dynamo Platform.

The power of Dynamo can be found in a wide variety of design-related activities. Dynamo enables an expanding list of readily accessible ways for you to get started:

- Explore visual programming for the first time
- Connect workflows in various software
- Engage an active community of users, contributors, and developers
- Develop an open-source platform for continued improvement

For the current course  
schedule and to register  
for this course:

Web: [redstack.com.au](http://redstack.com.au)

Phone: 1300 667 263

The course focuses on the essentials you will need to get up and running developing your own visual programs with Dynamo and key insights on how to take Dynamo further.

#### Prerequisites:

Before taking this course, students need to have a good working skill level in CAD software.

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### Visual Programming With Autodesk Dynamo

#### Chapter 1: Introduction

- What is Visual Programming?
- What is Dynamo?
- Dynamo in Action

#### Chapter 2: Hello Dynamo!

- Installing and Launching Dynamo
- The User Interface
- The Workspace
- Getting Started

#### Chapter 3: The Anatomy Of A Visual Program

- Nodes
- Wires
- Library
- Managing Your Program
- Managing Your Data with Presets

#### Chapter 4: The Building Blocks of Programs

- Data
- Math
- Logic
- Strings
- Color

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### Chapter 5: Geometry of Computational Design

- Geometry Overview
- Vectors
- Points
- Curves
- Surfaces
- Solids
- Meshes
- Importing Geometry

### Chapter 6: Designing With Lists

- What's a List?
- Working with Lists
- Lists of Lists
- n-Dimensional Lists

### Chapter 7: Code Blocks and DesignScript

- What's a Code Block?
- DesignScript Syntax
- Shorthand
- Functions

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### Chapter 8: Dynamo for Revit

- The Revit Connection
- Selecting
- Editing
- Creating
- Customising
- Documenting

### Chapter 9: Custom Nodes

- Custom Node Introduction
- Creating a Custom Node
- Publishing to Your Library
- Python Nodes
- Python and Revit

### Chapter 10: Packages

- Package Introduction
- Package Case Study – Mesh Toolkit
- Developing a Package
- Publishing a Package
- Zero-Touch Importing

### Chapter 11: Web Experience

- Send to Web
- Customise View

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## Chapter 12: Best Practices

- Graph Strategies
- Scripting Strategies
- Scripting Reference

## Appendix

- Resources
- Index of Nodes
- Useful Packages
- Example Files

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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.

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For more information, contact us on 1300 667 263.