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Prokon Build (A Division of Prokon Software Consultants)
10 Guild House, 239 Bronkhorst Street, Nieuw Muckleneuk, Pretoria 0181
PO Box 17295, Groenkloof, 0027, South Africa
VAT | 4770140731 Registration No | 1993/007557/07

Autodesk®
Advance Steel 2018
ESSENTIALS

DESCRIPTION

Covers Autodesk® Advance Steel fundamentals, so you become quickly productive with the software

TRAINING COURSEWARE

Autodesk® Advance Steel 2017
www.autodesk.com

PRE-REQUISITES

This course is designed for new Autodesk® Advance Steel users. It is recommended that you have:

- Knowledge of Structural drafting skills and terms
- A working knowledge of AutoCAD®
- A working knowledge of Microsoft® Windows®

OBJECTIVES

Module 1:	Introduction
Module 2:	Starting a Project
Module 3:	Working In 3D Cad
Module 4:	Advance Steel Interface
Module 5:	Coordinate Systems
Module 6:	Building Grids
Module 7:	Basic Structures
Module 8:	Simple Editing
Module 9:	Automatic Joints
Module 10:	Beam Features
Module 11:	Plates
Module 12:	Plate Features
Module 13:	Connection Elements
Module 14:	Custom Connections
Module 15:	Structural Elements
Module 16:	Other Model Objects
Module 17:	Project Explorer
Module 18:	Validating a Structure
Module 19:	Numbering
Module 20:	Creating Drawings
Module 21:	Editing Drawings
Module 22:	Lists
Module 23:	Other Documents

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AutoCAD® 2018 ESSENTIALS

DESCRIPTION

Covers AutoCAD® 2017 fundamentals, so you become quickly productive with the software

TRAINING COURSEWARE

Whitefrog Publishing Ltd. – AutoCAD® 2017 Training Courseware www.whitefrog.co

PRE-REQUISITES

This course is designed for new users of AutoCAD®.
It is recommended that you have:

- Architectural design, drafting, or engineering experience.
- A working knowledge of Microsoft® Windows®

OBJECTIVES

Module 1:	Introduction to the Working Environment
Module 2:	Creating Basic Shapes
Module 3:	Organising the Drawing
Module 4:	Object Manipulation
Module 5:	Object Modification
Module 6:	Annotating Drawings
Module 7:	Dimensioning Drawings
Module 8:	Hatching Regions
Module 9:	Using Element Block Libraries
Module 10:	Cross-Referencing Information
Module 11:	Preparing Layouts for Plotting and Publication
Module 12:	External References
Module 13:	User Defined attributes and fields
Module 14:	Introduction to 3D

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AutoCAD® Civil 3D® 2018 ESSENTIALS

DESCRIPTION

Covers AutoCAD® Civil 3D® fundamentals, so you become quickly productive with the software

TRAINING COURSEWARE

ASCENT Center for Technical Knowledge – AutoCAD® Civil 3D® Fundamentals

PRE-REQUISITES

This course is designed for new users of AutoCAD® Civil 3D®. It is recommended that you have:

- Knowledge of civil engineering principles and processes.
- A working knowledge of AutoCAD®
- A working knowledge of Microsoft® Windows®

OBJECTIVES

1. Navigating the AutoCAD® Civil 3D® User Interface
2. Leveraging a Dynamic Environment
3. Establishing Existing Conditions Using Survey Data
4. Modelling the Existing Terrain Using Surfaces
5. Designing in 2D Using Alignments
6. Displaying and Annotating Alignments
7. Designing Vertically Using Profiles
8. Displaying and Annotating Profiles
9. Designing in 3D Using Corridors
10. Creating Cross Sections of the Design
11. Displaying and Annotating Sections
12. Designing and Analysing Boundaries Using Parcels
13. Displaying and Annotating Parcels
14. Designing Gravity Pipe Networks
15. Designing Pressure Pipe Networks
16. Displaying and Annotating Pipe Networks
17. Designing New Terrain
18. Analysing, Displaying, and Annotating Surfaces
19. From Design to Construction

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Plant Design® 2018 INTRODUCTION

DESCRIPTION

This course gives an introduction to AutoCAD® Plant 3D and AutoCAD® P&ID

TRAINING COURSEWARE

ASCENT Center for Technical Knowledge - Introduction to Plant Design® 2017
www.ascented.com

PRE-REQUISITES

This course is designed for new users of AutoCAD®. It is recommended that you have:

- Basic Knowledge of Plant Design
- A working knowledge of AutoCAD®
- A working knowledge of Microsoft® Windows®

OBJECTIVES

Introduction to AutoCAD Plant 3D

- Working in a Project
- Opening a Drawing
- Exploring the User Interface
- Managing Layers and Colours

AutoCAD P&ID

- Creating and Adding Existing Drawings
- Equipment and Nozzles
- Piping
- Instruments and Instrument Lines
- Tagging Concepts
- Annotation Concepts
- Editing Techniques
- Data Manager and Reports
- Custom One-off Symbols
- Offpage Connections
- Advanced Topics and Troubleshooting
- P&ID Admin for Users
- Generating Reports

AutoCAD Plant 3D - Mixed Metric

- Creating Project Folders and Drawings
- Steel Modeling and Editing
- Equipment Modeling and Editing
- Piping Basics
- Piping Editing and Advanced Topics
- Working with P&ID Data in Plant 3D
- Creating and Annotating Orthographic Views
- Creating Isometric Drawings

Setting up and Administering a Plant Project

- Overview of Project Setup
- Overview of Project Structure and Files
- Setting Up Larger Projects
- Defining New Objects and Properties
- Customizing Data Manager
- Creating and Editing Drawing Templates and Data Attributes
- Specs and Catalogs
- Isometric Setup
- Troubleshooting
- Creating and Managing Report Configurations
- Setting Up SQL Express for AutoCAD Plant 3D

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Autodesk® Revit® Architecture 2018 ESSENTIALS

DESCRIPTION

Covers Autodesk® Revit® Architecture 2017 fundamentals, so you become quickly productive with the software

TRAINING COURSEWARE

Whitefrog Publishing Ltd. – Autodesk® Revit® Architecture 2017 Training Courseware
www.whitefrog.co

PRE-REQUISITES

This course is designed for new users of Autodesk® Revit® Architecture. No previous CAD experience is necessary.
It is recommended that you have:

- Architectural design, drafting, or engineering experience.
- A working knowledge of Microsoft® Windows®

OBJECTIVES

Module 0:	Autodesk® Revit® in a Nutshell
Module 1:	Introducing Revit as a BIM Tool
Module 2:	Ui Tour, Project Navigation and View Creation
Module 3:	Element Selection and Manipulation
Module 4:	Visibility Control and Categorisation
Module 5:	Model Development Methodology
Module 6:	Wall Creation and Manipulation
Module 7:	Floors, Roofs and Ceilings
Module 8:	Window, Door and Component Use
Module 9:	System Family Editing
Module 10:	Basic Schedules and Legends
Module 11:	Geometry Formation and In-Place Families
Module 12:	Massing Tools and the Building Maker
Module 13:	Stairs, Rampsand Railings
Module 14:	Basic Curtain Walls
Module 15:	Room Data and Colour-Fill
Module 16:	2D Draughting and Annotation
Module 17:	Sheet Compilation and Publication
Module 18:	Basic Sub-Division and Collaboration
Module 19:	Introduction to the Principles of Family Editing

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Autodesk® Revit® Families 2018 LEVEL 1

DESCRIPTION

Covers Autodesk® Revit® Family basics. This course focuses on the creation of 2D Families.

TRAINING COURSEWARE

Courseware developed by Prokon Software Consultants (Pty) Ltd. www.prokonbuild.co.za
www.prokon.com

PRE-REQUISITES

This course is designed for existing users of Autodesk® Revit®. It is recommended that you have:

- Architectural design, drafting, or engineering experience
- Completed Revit®
- Essentials training
- A working knowledge of Microsoft® Windows®

OBJECTIVES

1. Introduction to Families
2. Tags
   - View Tags
   - Element Tags
   - Keynotes
3. Profiles
   - Creating a Profile Family
   - Applying a Profile Family to Model Elements
4. Repeating Details
   - Creating a Repeating Detail
5. Detail Components
   - Creating a Detail Component Family
6. Line Based Families
   - Creating an Annotation Family
   - Creating a Line Based Family

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Autodesk® Revit® Families 2018 LEVEL 2

DESCRIPTION

Covers Autodesk® Revit® intermediate/advanced family concepts. This course focuses on the creation of 3D Families.

TRAINING COURSEWARE

Courseware developed by Prokon Software Consultants (Pty) Ltd. www.prokonbuild.co.za
www.prokon.com

PRE-REQUISITES

This course is designed for existing users of Autodesk® Revit®. It is recommended that you have:

- Architectural design, drafting, or engineering experience
- Completed Revit® Essentials training
- Completed Revit® Families Level 1
- A working knowledge of Microsoft® Windows®

OBJECTIVES

1. Introduction to Families
2. Solids / Voids
   - Extrusion, Sweep, Blend, Revolve, Swept, Blend
3. 3D Constraints In First Generic Family
   - Creating A Generic Family
   - Applying Parameters To 3D Solids
4. Ladder Family
   - Using Advanced Formulae to add Array Calculations to Components
   - Using Nested Families to Simplify Geometry
5. Truss Family
   - Further Enhance Formulas using Trigonometry
6. Line Based Families to Create Light Runs
   - Creating a Simple Photometric Light
   - Using the Line Based Family to quickly place Multiple Geometry

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Autodesk® Revit® MEP 2018 ESSENTIALS

DESCRIPTION

Covers Autodesk® Revit® MEP 2017 fundamentals, so you become quickly productive with the software

TRAINING COURSEWARE

Whitefrog Publishing Ltd. – Autodesk® Revit® MEP 2017 Training Courseware
www.whitefrog.co

PRE-REQUISITES

This guide is designed for new users of Autodesk® Revit® MEP. No previous CAD experience is necessary.
It is recommended that you have:

- Architectural design, drafting, or engineering experience.
- A working knowledge of Microsoft® Windows®

OBJECTIVES

Module 0:	Revit in a Nutshell
Module 1:	Introduction to the Principles of Bim
Module 2:	UI Tour, Project Navigation and View Creation
Module 3:	Element Selection and Manipulation
Module 4:	Visibility Control and Categorisation
Module 5:	Model Development Methodology
Module 6:	Establishing a Project
Module 7:	Introduction to Building Elements
Module 8:	Equipment, Fixtures and Fittings
Module 9:	Introducing Systems
Module 10:	Basic Schedules and Legends
Module 11:	Geometry Formation and In-Place Families
Module 12:	Mechanical Systems
Module 13:	Electrical Systems
Module 14:	Plumbing Systems
Module 15:	Rooms, Areas, Spaces and Volumes
Module 16:	2D Draughting and Annotation
Module 17:	Sheet Compilation and Publication
Module 18:	Basic Sub-Division and Collaboration
Module 19:	Introduction to the Principles of Family Editing

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Autodesk® Revit® Structure 2018 ESSENTIALS

DESCRIPTION

Covers Autodesk® Revit® Structure 2017 fundamentals, so you become quickly productive with the software

TRAINING COURSEWARE

Whitefrog Publishing Ltd. – Autodesk® Revit® Structure 2017 Training Courseware
www.whitefrog.co

PRE-REQUISITES

This guide is designed for new users of Autodesk® Revit® Structure. No previous CAD experience is necessary.
It is recommended that you have:

- Architectural design, drafting, or engineering experience.
- A working knowledge of Microsoft® Windows®

OBJECTIVES

Module 0:	Revit in a Nutshell
Module 1:	Introduction to the Principles of Bim
Module 2:	UI Tour, Project Navigation and View Creation
Module 3:	Element Selection and Manipulation
Module 4:	Visibility Control and Categorisation
Module 5:	Model Development Methodology
Module 6:	Establishing a Project
Module 7:	Modelling Basics - Walls, Columns, Beams & Bracing
Module 8:	Foundations and Piling
Module 9:	System Family Editing
Module 10:	Basic Schedules and Legends
Module 11:	Geometry Formation and In-Place Families
Module 12:	Slab and Roof Tools
Module 13:	Stairs Ramps and Railings
Module 14:	Beam and Truss Systems
Module 15:	Construction sequencing (Phasing)
Module 16:	2D Draughting and Annotation
Module 17:	Sheet Compilation and Publication
Module 18:	Basic Sub-Division and Collaboration
Module 19:	Introduction to the Principles of Family Editing
Module 20:	Considering Options and Alternatives

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Autodesk®
VEHICLE TRACKING

DESCRIPTION

Covers Autodesk Vehicle tracking, to become more productive with the software

TRAINING COURSEWARE

Created in-house with our techinical knowledge and product expertise.

PRE-REQUISITES

This course is designed for existing user of AutoCAD and Civil 3D that want to utilize Autodesk Vehicle Tracking for design purposes. It is recommended that you have:

- Knowledge of the engineering principles and processes
- A working knowledge of AutoCAD and Civil 3D
- A working knowledge of Microsoft Windows
- An understanding of vehicle maneuverability
- Good knowledge of design considerations for parking layouts and turning radii

OBJECTIVES

1. Utilize AVT basics
2. Select the appropriate vehicle from standard libraries
3. Comprehend interoperability between AVT objects and other objects
4. Manual design optimization methods
5. Comprehend standard libraries
6. Customize standard libraries
7. Acknowledge AVT assumptions
8. Improve design efficiency
9. Design traffic circles
10. Apply design checks to traffic circles
11. Analyze traffic circles
12. Select the appropriate parking layouts from standard libraries
13. Designing parking layouts
14. Modify parking layouts with appropriate tools
15. Analyze parking layouts
16. Leveraging Civil 3D with AVT
17. Add design data to a civil 3D profile
18. Explore additional tools
19. Analyze overall design in a 3D perspective

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Autodesk®
3Ds MAX 2018
ESSENTIALS

DESCRIPTION

Covers Autodesk® 3ds Max 2017 fundamentals, so you become quickly productive with the software.

TRAINING COURSEWARE

John Wiley & Sons Inc. – Autodesk 3ds Max 2017 Essentials www.wiley.com

PRE-REQUISITES

This course is designed for new users of Autodesk® 3ds Max ®. It is recommended that you have:

- A working knowledge of Microsoft® Windows®

OBJECTIVES

Chapter 1: 3ds Max Interface
Chapter 2: Your First 3ds Max Project
Chapter 3: Modeling in 3ds Max: Architectural Model Part
Chapter 4: Modeling in 3ds Max: Architectural Model Part II
Chapter 5: Introduction to Animation
Chapter 6: Animation Principles
Chapter 7: Character Modeling Part I (Optional)
Chapter 8: Character Modeling Part II (Optional)
Chapter 9: Introduction to Materials
Chapter 10: Textures and UV Workflow: The Alien
Chapter 11: Character Studio: Rigging (Optional)
Chapter 12: Character Studio: Animation (Optional)
Chapter 13: Introduction to Lighting: Interior Lighting
Chapter 14: 3ds Max Rendering
Chapter 15: Mental ray
Chapter 16: Revit Integration

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Autodesk®
Storm and Sanitary analysis

DESCRIPTION

Covers Autodesk® Storm and Sanitary analysis fundamentals so that you can design your storm and sanitary networks effectively.

TRAINING COURSEWARE

Developed in-house form the top Software Consultants in South Africa

PRE-REQUISITES

This course is designed for users with fundamental understanding of AutoCAD® Civil 3D®. It is recommended that you have:

- Knowledge of civil engineering principles and processes
- A working knowledge of AutoCAD®
- A working knowledge of Microsoft® Windows®
- A working knowledge of Microsoft® Excel®

OBJECTIVES

- Navigate the Autodesk® Storm and Sanitary analysis interface.
- Leveraging existing civil 3D objects and dynamics.
- Establish network design parameters / conditions within AutoCAD® Civil 3D® and Autodesk® Storm and Sanitary analysis, EPA SWMM included.
- Export data for analysis in Autodesk® Storm and Sanitary analysis.
- Utilize Autodesk® Storm and Sanitary analysis engine.
- Visualize results dynamically within Autodesk® Storm and Sanitary analysis.
- Import the final design to AutoCAD® Civil 3D®.
- Displaying and Annotating design data on Profiles
- Displaying and Annotating design data on Plan.

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Executive Guide to **BIM**

DESCRIPTION

This module provides a high-level explanation, in laymen's terms, of the terminology and principles of BIM and how it may affect you and your business.

TRAINING COURSEWARE

Whitefrog Publishing Ltd. - Executive Guide to BIM Training Courseware
www.whitefrog.co

PRE-REQUISITES

This course is designed for anyone within your company to understand the importance of the principles, terminology & implementation of BIM.

- Admin Staff
- Software Users
- Managers
- Business Owners
- CEO

No computer skills or previous experience needed.

OBJECTIVES

- **Understanding the BIM Process.**
- **The BIM Lifecycle.**
- **BIM Management.**
- **Digital Exchange of Data.**
- **BIM Execution Plan.**