

Table of Contents

Introduction

About this book	Intro-1
Templates to download	Intro-1
About the Author	Intro-1
Configuring your system	Intro-2
System Requirements	Intro-8
Customizing your wheel mouse	Intro-10

Lesson 1

Display Multiple Drawings	1-2
How to configure AutoCAD to display Multiple Drawings	1-2
Warm up drawings	1-4
Exercises 1A, 1B, 1C	1-5
Review Plotting from Model Space	1-8

Lesson 2

Customizing your Workspace	2-2
Creating a Workspace	2-3
Creating a Ribbon tab	2-5
Add a Ribbon Panel to a tab	2-8
Create a New Ribbon panel	2-10
Add a command to a Ribbon panel	2-11
Customize the Status Bar	2-12
Customize Quick Access Toolbar	2-13
Export a Workspace	2-14
Import a Workspace	2-15
Delete a Workspace	2-16

Lesson 3 Master Decimal Setup

Exercises	
3A - Create a Master Decimal Setup Template	3-2
3B - Create a Page Setup for 8-1/2 X 11 sheet	3-12
3C - Create a Border and Title Block	3-15
3D - Create a Viewport	3-16
3E - Plotting from Layout tab	3-17

Lesson 4 Master Feet and Inches Setup

Exercises	
4A - Create a Feet-Inches Setup Template	4-2
4B - Create a Page setup for 8-1/2 X 11 sheet	4-6
4C - Create a Border and Title Block	4-9
4D - Create a Viewport	4-10
4E - Plotting from Layout tab	4-11
4F - Create a New Dimension Style	4-14

Lesson 5

Create a Table	5-2
Insert a Table	5-6
Insert a Block into a Table Cell	5-8
Insert a Formula into a Table Cell	5-9
Modify an existing Table	5-11
Modify using grips	5-12
AutoFill grip	5-13
Table Breaking	5-15
Create a Field	5-16
Update a Field	5-17
Editing Fields	5-18
Add a Field to a Table Cell	5-18
Exercises	
5A—Create a Table	5-19
5B—Insert a Table	5-24
5C—Modify an existing Table	5-25
5D—Add Fields to an existing Table	5-26
5E—Update a Field	5-27
5F – AutoFill	5-28
5G – Table Breaking	5-29

Lesson 6

Isometric drawings	6-2
Isometric snap and grid	6-2
Isoplanes	6-3
Isometric Ellipse	6-4
Exercises	
6A - Isometric Assembly	6-5
6B - Isometric Object	6-6
6C - Abstract House	6-7

Lesson 7

Copy, Clip and Cut	7-2
Paste	7-3
Isometric text	7-5
Dimensioning an isometric drawing (Oblique)	7-6
Exercises	
7A - Oblique dimensioning-mechanical	7-7
7B – Oblique dimensioning-architectural	7-8
7C - Isometric Text	7-9

Lesson 8

Block	8-2
Annotative	8-5
Inserting-Review	8-6
Attributes	8-8
Creating	8-8
Exercises	
8A – Assigning Attributes to a Block	8-13
8B - Create a Floor Plan with blocks and Attributes	8-17
8C - Assigning Attributes to Multiple Blocks	8-19

Lesson 9

Editing Attributes	9-2
Extract Data from Block Attributes	9-7
Exercise	
9A – Extracting Attributes to an AutoCAD table	9-13
9B – Extracting Attributes to an External File	9-14

Lesson 10

DesignCenter	10-2
Drag and Drop Blocks	10-5
Drag and Drop Layouts, Text Styles, etc.	10-6
Autodesk Seek	10-7
Exercise	
10A---Inserting Blocks from the Design Center	10-8
10B--- Borrowing settings from another drawing	10-10

Lesson 11

External Referenced drawings (XREF)	11-2
Inserting	11-3
Image fade	11-5
Palette	11-6
Clipping an External Referenced drawing	11-10
Clipping options	11-11
Edit an External Referenced drawing	11-12
Convert an object to a Viewport	11-14
Creating Multiple Viewports and Multiple Xrefs	11-15
Creating Multiple Viewports- A quick method	11-17
Exercises	
11A - Xref Multiple Drawings	11-20
11B – Creating Multi-scaled views	11-25
11C –Clipping an External Reference	11-27

Lesson 12

Ordinate dimensioning	12-2
Creating	12-3
Jog	12-4
Qdim and ordinate	12-5
Alternate units	12-6
Tolerances	12-7
Geometric tolerances	12-9
Geometric tolerances and Qleader	12-10
Datum feature symbol	12-11
Datum triangle	12-12
Typing Geometric Symbols	12-13
Exercises	
12A - Ordinate dimensioning	12-14
12B - Dual dimensioning	12-15
12C - Deviation & Symmetrical	12-16
12D - Limits	12-17
12E - Geometric tolerances	12-18

Lesson 13

Parametric Drawing	13-2
Geometric Constraints	13-3
Controlling the display of Geometric Constraint icons	13-15
Dimensional Constraints	13-16
Parameter Manager	13-20
Controlling the display of Dimensional Constraint icons	13-25
Exercises 13A and 13B	13-26

Lesson 14

Introduction to 3D	14-2
Enter the AutoCAD 3D Workspace	14-3
Viewing a 3D model	14-5
ViewCube	14-6
Orbit	14-9
3D Views	14-10
Visual Styles	14-11
Wireframe	14-14
Surface model	14-15
Solid model	14-16
Exercises	
13A - Create a Wireframe Model	14-17
13B - Create a Surface Model	14-18

Lesson 15

Drawing basic geometric shapes	15-2
Box	15-3
Cylinder	15-7
Cone	15-9
Sphere	15-11
Pyramid	15-12
Wedge	15-13
Torus	15-17
Exercises	
15A – Create 4 Solid Boxes	15-18
15B – Create 3 solid Cylinders	15-19
15C – Create 2 solid Cones	15-20
15D – Create 3 solid Wedges	15-21
15E – Create a solid Sphere	15-22
15F – Create 3 solid Torus'	15-23
15G - Create 2 solid Pyramids	15-24

Lesson 16

Configuring options for 3D	16-2
Understanding the UCS	16-3
Moving the UCS	16-4
Rotating the UCS	16-6
New direction for Z axis	16-7
Boolean Operations	16-8
Union	16-8
Subtract	16-9
Intersection	16-10
Exercises	
16A – Subtract	16-12
16B – Union and Subtract	16-14
16C – Assembling 3D solids	16-16

Lesson 17

Extrude	17-2
Region	17-5
Presspull	17-6
Polysolid	17-7
DELOBJ system variable	17-8
Plan View	17-9
Exercises	
17A – Extrude	17-10
17B – Extrude along a path	17-11
17C – Extrude with taper	17-12
17D – Extrude or Presspull a Region	17-14
17E – Extrude or Presspull a Region	17-15

Lesson 18

3D Operations	18-2
3D Mirror	18-2
3D Rotate	18-3
3D Align	18-4
3D Array	18-5
Exercises	
18A – 3D Mirror	18-7
18B – 3D Rotate	18-8
18C – 3D Align	18-9
18D – 2D Array	18-10
18E – 3D Array – Rectangular	18-11
18F – 3D Array – Polar	18-12

Lesson 19

Stretch using grips	19-2
Move using grips	19-3
Constrain movement	19-6
Exercises	
19A - Create a Cube	19-7
19B – Presspull or grips	19-8
19C – Add Cylinder and subtract	19-9
19D – Grips or 3D Move	19-10
19E – Properties or Grips	19-11
19F - Delete	19-12

Lesson 20

Revolve	19-2
Slice	19-3
Section Plane	19-4
Sweep	19-7
Helix	19-8
Exercises	
20A – Slice	20-9
20B – Revolve	20-10
20C –Create 2D and 3D Section	20-12
20D – Sweep	20-13
20E – Helix	20-14
20F – Solid Helix	20-15

Lesson 21

Plotting Multiple views	21-2
Shell	21-4
Exercises	
21A – Plot multiple views	21-5
21B - Shell	21-6

PROJECTS

Architectural
Electro-mechanical
Mechanical

APPENDIX

Appendix A. Add a Printer / Plotter

INDEX