



SOLIDWORKS®

SOLIDWORKS Drawings - ISO

Contents

Introduction

About This Course	2
Prerequisites	2
Using this Book	2
About the Training Files	3
Training Templates	3
Accessing Training Templates in SOLIDWORKS	3
Conventions Used in this Book	4
Windows® OS	5
Use of Color	5
More SOLIDWORKS Training Resources.	5
Local User Groups	5

Lesson 1:

Review of the Basics

Review of Essentials	8
Drawing System Options	9
Beginning a New Drawing	10
View Palette and Model Views	11
Detailing Techniques	11
Importing Design Annotations	12
Using Model Items	13
Dimensions in Drawings	15
Section Views	18
Detail Views	19
Moving Drawing Views	20
View Alignment	20

Moving Dimensions	21
Center Marks & Centerlines	21
Assembly Drawing Review	24
Bill of Materials Tables	25
Adding Balloons	30
Adding Sheets	31
Standard 3 View	31
Exercise 1: Simple Part	34
Exercise 2: Drawing Views	40
Exercise 3: Section Cutting Line Options	48
Exercise 4: Removed Section Views	57
Exercise 5: Assembly Practice	59
Exercise 6: Adding Annotations	68

Lesson 2:

Understanding Drawing Templates

Structure of a Drawing Document	78
Drawing Document	78
Drawing Sheet	79
Sheet Properties	79
Sheet Format	80
Edit Sheet Format	80
Understanding Drawing Templates	80
Why are Drawings Structured this Way?	81
Sheet Format Features	83
Notes Linked to Properties	84
Annotation Link Errors	86
Drawing Template Design Strategy	88
Designing a Drawing Template	90
Understanding Document Properties	91
Display Settings in Templates	93
Sheet Properties in Templates	94
Custom Properties in Templates	95
Save as Template	96
Defining Template Locations	97
Model Templates	98
Creating a Sample Model and Drawing	100
Exercise 7: Defining Units	103
Exercise 8: Designing Model Templates	107
Exercise 9: Designing a Drawing Template	111

Lesson 3:**Customizing the Sheet Format**

Customize the Sheet Format	122
Completing the Title Block Sketch	124
Completing the Title Block Notes	125
Tips for Locating Notes	126
Adding a Company Logo	127
Defining the Border	128
Setting Anchors	130
Exit Edit Sheet Format Mode	131
Title Block Fields	132
Exercise 10: Customizing a Sheet Format	135

Lesson 4:**Saving and Testing the Sheet Format File**

Understanding Sheet Format Properties	146
Understanding Sheet Format Behavior	148
Saving the Sheet Format	149
Reload Sheet Format	150
Defining Sheet Format Locations	152
Testing the Sheet Format	152
Testing Sheet Format Properties	155
Testing Default Values	157
Exercise 11: Saving and Testing a Sheet Format	159

Lesson 5:**Creating Additional Sheet Formats and Templates**

Creating Additional Sheet Formats	166
Drawing Templates with Sheet Formats	170
Other Drawing Template Items	171
Property Tab Builder	172
The Property Tab Builder UI	173
Defining Property Tab Template Locations	176
Additional Property Tab Options	177
Properties.txt File	179
Exercise 12: Create a New Sheet Format Size	181
Exercise 13: Drawing Templates with Sheet Formats	186
Exercise 14: Predefined Views	188
Exercise 15: Property Tab Templates and Properties.txt	194

Lesson 6:**Advanced Options for Drawing Views**

Advanced Drawing Views	202
Showing Hidden Edges	204
Drawing View Properties Dialog	204
Broken-out Section View	207
Editing Broken-out Section Views	208
Auxiliary View	208
Rotating Views	209
Crop View	210
Understanding View Focus	211
Editing Crop Views	212
Advanced Views for Assemblies	214
Section Scope	215
Alternate Position View	217
Editing Alternate Position Views	218
Using Configurations	219
Using Display States	220
Custom View Orientations	222
New View	223
Relative View	224
3D Drawing Views	225
Exercise 16: View Practice	227
Exercise 17: Auxiliary Views	232
Exercise 18: Broken Views	236
Exercise 19: Heater Assembly	243
Exercise 20: Pivot Conveyor	246
Exercise 21: Housing	251

Lesson 7:**Understanding Annotation Views**

Understanding Annotation Views	260
Understanding Annotation Behavior	262
What are Annotation Views?	262
Annotations Folder	262
Default Annotation Views	263
Annotations View Visibility	264
Insert Annotation View	265
Editing Annotation Views	266
Annotation Update	269
Exercise 22: Editing Annotation Views	271

Lesson 8:**Advanced Detailing Tools**

Detailing Tools	278
Annotation Views vs. Model Items	278
Using Annotation Views in Existing Drawing Views	280
Combining Annotation Views and Model Items	283
Parametric Notes	285
Dimension Types	287
Chamfer Dimension	288
Ordinate Dimensions	289
Ordinate Dimension Options	291
Baseline Dimensions	292
Baseline Dimension Alignment	294
Autodimension	295
Arranging Dimensions	295
Aligning Linear Diameter Dimensions	298
Dimension Styles	299
Styles in the PropertyManager	299
Styles in the Dimension Palette	301
Annotations in the Design Library	302
Location Labels	303
Exercise 23: Detailing Practice	305
Exercise 24: Dimension Types	310
Exercise 25: Additional Tools	317

Lesson 9:**Advanced Options for BOM Tables**

Tables in SOLIDWORKS	334
Bill of Materials Properties	334
Displaying the BOM Assembly Structure	337
Modifying a Table	342
Saving a Table Template	344
Properties in BOM Tables	345
BOM Quantity	346
BOM Part Numbers	346
Child Component Display	348
BOM Component Options	349
Balloon Indicator	350
Exercise 26: Bill of Materials	352
Exercise 27: Magnetic Lines	365

Lesson 10:**Additional SOLIDWORKS Tables**

Additional SOLIDWORKS Tables	372
Inserting a Hole Table	372
Adjusting Hole Table Settings	374
Splitting a Table	377
Using a Revision Table	378
Adding a Revision	380
Leader Annotation Options	382
Design Tables in Drawings	384
Exercise 28: Hole Table	385
Exercise 29: Revision and Design Tables	390

Lesson 11:**Additional Drawing Tools**

Reusing Drawings	402
Open with a New Reference	402
Save As with References	407
Pack and Go	410
Draw Compare	410
Draw Compare Options	411
SOLIDWORKS Design Checker	413
SOLIDWORKS Task Scheduler	413
Exercise 30: Open with New Reference	416
Exercise 31: Save As with References	422
Exercise 32: Pack and Go	426
Exercise 33: SOLIDWORKS Task Scheduler	431
Exercise 34: SOLIDWORKS Design Checker	433

Lesson 12:**Managing Performance**

Managing Performance	442
Performance Evaluation	442
Open Progress Indicator	443
Detailing Practices	447
System Options & Document Properties	450
Open Options	452
Detached Drawings	455
Loading the Model	457
Hardware and Performance	458
Additional Considerations	459
Quick Reference Guide	461
Exercise 35: Detached Drawing	462