

The following tables are provided to help you identify where in the ASCENT Inventor 2010 courseware you will cover the objectives for the Autodesk Inventor 2010 Certified Associate (Table 1) and Certified Professional (Table 2) exams.

Table 1: Certified Associate Exam Objectives and ASCENT courseware mapping reference

Exam Sections	Exam Objectives	ASCENT Training Guide Chapter*
Getting Started With Autodesk Inventor	Identify the tools that are available in the graphics window.	Chapter 1: Introduction to Inventor
Basic Sketching Techniques	Apply geometric constraints to sketch geometry.	Chapter 2: Creating the Base Feature Chapter 3: Sketching Geometry
	Use additional options when applying dimensions.	Chapter 3: Sketching Geometry
Basic Shape Design	Use the Extrude tool to create extruded features.	Chapter 2: Creating the Base Feature Chapter 5: Sketched Secondary Features
	Use the Operation and Extent termination options when adding 3D features.	Chapter 5: Sketched Secondary Features
	Describe sketch line types and their behavior.	Chapter 3: Sketching Geometry Features
	Create and modify parameters and equations.	Chapter 9: Equations
	Use the Sweep tool to create sweep features that follow 2D and 3D paths.	Chapter 11: Sweep Features
Detailed Shape Design	Define a hole feature.	Chapter 6: Creating Pick and Place Features
	Use the Rectangular Pattern tool to create rectangular patterns.	Chapter 13: Duplication Tools
	Use the Shell tool to create shelled features.	Chapter 10: Additional Features and Functions
Assembly Design Overview	Create a project file for a single user.	Chapter 20: Working With Projects
Placing, Creating, and Constraining Components	Describe how assembly constraints affect individual parts in the assembly.	Chapter 15: Assembly Environment
	Describe Content Center consumer environment and what Content Center consumers can do.	Chapter 15: Assembly Environment
	Create components in an assembly.	Not covered in Introduction to Solid Modeling (covered in Chapter 4 Assembly Parts and Features in the Adv Assembly training guide)
Interacting with an Assembly	Use the Selection Priority and Component Selection tools to simplify and enhance component selection.	Chapter 16: Manipulating Assembly Display
	Calculate physical properties.	Chapter 17: Model Information
	Describe presentation files and their role in creating exploded drawing views.	Chapter 18: Design Presentation and Animation
Basic View Creation	Edit orthographic views and describe how other projected views may be affected.	Chapter 21: Drawing Basics
	Edit section views.	Chapter 21: Drawing Basics
	Crop a drawing view using a sketched boundary shape.	Not Covered in ASCENT Books – will add to Intro in the next release - intuitive command once you know how to create views
	Move, align, and edit drawing views.	Chapter 21: Drawing Basics
Dimensions, Annotations, and Tables	Create and edit hole tables.	Chapter 24 Drawing Annotations
	Create centerlines and center marks.	Chapter 24 Drawing Annotations
	Add and edit revision tags.	Chapter 24 Drawing Annotations
	Position model dimensions, add text and symbols, and edit model dimension values.	Chapter 24 Drawing Annotations
Annotating Assembly Drawings	Describe the bill of materials and its uses	Chapter 23 Assembly Bill of Materials
	Use the Edit Parts List dialog box to modify your parts lists.	Chapter 22 Detailing Drawings
	List the steps required to manually place and edit balloons.	Chapter 22 Detailing Drawings
Drawing Standards and Resources	Describe styles and their role in drawing standards.	Chapter 22 Detailing Drawings

## Inventor 2010 Courseware

ASCENT's Inventor 2010 courseware instructs users in best usage approaches for parametric design philosophy through a hands-on, practice-intensive curriculum.

### Introduction to Solid Modeling

Users acquire the knowledge needed to complete the process of designing models from conceptual sketching, through to solid modeling, assembly design, and drawing production.

### Advanced Part Modeling

The goal of this courseware is to build on the skills acquired in the *Inventor Introduction to Solid Modeling* course by taking students to a higher level of productivity when designing part models in Inventor. In addition, students will learn about various drawing tools.

### Advanced Assembly Modeling

The courseware builds on the skills acquired in the *Inventor Introduction to Solid Modeling* courseware to take students to a higher level of productivity creating and working with assemblies in Inventor.

## ASCENT - Center for Technical Knowledge

ASCENT incorporates the best of Expert-Led (instructor-led) and technology-based training offerings to create the most effective course content, ensuring that users achieve maximum productivity from their chosen engineering tools.

ASCENT curriculum provides:

- A building block approach
- Real-world drawing projects
- Extensive illustrations and lab exercises
- Instructor guides
- Student guides containing CD's with drawing files for practice exercises
- A choice of ordering manuals pre-printed and bound, or purchasing licenses to print on demand

# Inventor 2010

## ASCENT courseware mapping reference for Autodesk Certification Exam objectives

Table 2: Certified Professional Exam Objectives and ASCENT courseware mapping reference

Exam Sections	Exam Objectives	ASCENT Training Guide Chapter*
Basic Sketching Techniques	Describe best practices for dimensioning your sketch	Chapter 2 Creating the Base Feature Chapter 3 Sketching Geometry Chapter 4 Additional Sketching Tools
Basic Shape Design	Extruded Features – Orient sketch planes based on other planes or faces.	Chapter 1: Introduction to Inventor Chapter 5 Sketched Secondary Features
	Revolved Features – Orient sketch planes based on other planes or faces.	Chapter 1: Introduction to Inventor Chapter 5 Sketched Secondary Features
	Project part edges onto a sketch plane.	Chapter 2 Creating the Base Feature Chapter 3 Sketching Geometry Chapter 4 Additional Sketching Tools
	Utilize the 3D Grips tool and adjust the geometry a visual distance, a numeric distance, or to a specific geometric location.	Not covered in Introduction to Solid Modeling (covered in Chapter 1 Design Philosophies in the Adv Part training guide)
	Use the Work Plane tool to create work planes on a part.	Chapter 7 Work Features
Detailed Shape Design	State the guidelines for creating sweeps.	Chapter 11 Sweep Features
	State the guidelines for creating chamfers and fillets.	Chapter 6 Creating Pick and Place Features
	Use the Hole tool to create hole features.	Chapter 6 Creating Pick and Place Features
	Use the Mirror tool to create symmetric features.	Chapter 13 Duplication Tools
	Create pattern features.	Chapter 13 Duplication Tools
Placing, Creating, and Constraining Components	Use the Shell tool to create shelled features.	Chapter 10 Additional Features and Functions
	State some guidelines for proper constraining techniques.	Chapter 15 Assembly Environment
	Use the Content Center consumer environment to place, and Constraining Components change, and open Content Center components.	Chapter 15 Assembly Environment
Interacting with an Assembly	State some guidelines for in-place component design.	Not covered in Introduction to Solid Modeling (covered in Chapter 4 Assembly Parts and Features in the Adv Assembly training guide)
	Animate components in an assembly by driving constraints.	Chapter 19 Assembly Tools
Basic View Creation	Control hatch and sectioning in section views.	Chapter 21 Drawing Basics
Dimensions, Annotations, and Tables	Dimension drawing views.	Chapter 22 Detailing Drawings
Annotating Assembly Drawings	Use the Edit Parts List dialog box to modify your parts lists.	Chapter 22 Detailing Drawings
Drawing Standards and Resources	Set drawing standards.	Chapter 22 Detailing Drawings

\* Inventor 2010 Introduction to Solid Modeling courseware referenced unless otherwise specified.