

# Inventor 2011

## ASCENT courseware mapping reference for Autodesk Certification Exam objectives

The following tables will help you identify which of the ASCENT Inventor 2011 training guides (and in which chapter), you'll find the Autodesk exam objectives, in order to help prepare you for the Autodesk Inventor 2011 Certified Associate and Certified Professional exams.

### Inventor 2011 Courseware

ASCENT's Inventor 2011 courseware instructs users in best usage approaches for parametric design philosophy through a hands-on, practice-intensive curriculum.

#### Introduction to Solid Modeling

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

#### Advanced Part Modeling

This is the second in a series of courses on Inventor from ASCENT. The goal of this training guide 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.

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

| Exam Sections      | Exam Objectives   | Training Guide & Chapter  |
|--------------------|---|---|
| User Interface     | Describe how to use the heads up display (HUD) to create and edit features        | Introduction to Solid Modeling: <i>throughout book</i>                          |
|                    | Identify how to use visual styles to control the appearance of a model            | Introduction to Solid Modeling: Chapter 1 and Advanced Part Modeling: Chapter 1 |
| Project Files      | Describe the options for controlling a project file                               | Introduction to Solid Modeling: Chapter 21                                      |
| Sketching          | Recall the function of each sketch constraint                                     | Introduction to Solid Modeling: Chapters 2 & 3                                  |
|                    | Demonstrate how to create dynamic input dimensions                                | Introduction to Solid Modeling: Chapter 2                                       |
| Part Modeling      | Create extrude features   | Introduction to Solid Modeling: Chapters 2 & 5                                  |
|                    | Create fillet features  | Introduction to Solid Modeling: Chapter 6                                       |
|                    | Create hole features  | Introduction to Solid Modeling: Chapter 6                                       |
|                    | Create a pattern of features  | Introduction to Solid Modeling: Chapter 13                                      |
|                    | Describe how to use the Project Geometry and Project Cut Edges commands           | Introduction to Solid Modeling: Chapters 4 & 20                                 |
|                    | Create revolve features   | Introduction to Solid Modeling: Chapters 2 & 5                                  |
|                    | Create a shell feature  | Introduction to Solid Modeling: Chapter 9                                       |
| Drawing            | Create work features and a UCS  | Introduction to Solid Modeling: Chapter 7 and Advanced Part Modeling: Chapter 4 |
|                    | Explain how to edit a base and projected views                                    | Introduction to Solid Modeling: Chapter 22                                      |
|                    | Describe how to create a slice view in a drawing                                  | Introduction to Solid Modeling: Chapter 22                                      |
|                    | Demonstrate how to create and edit dimensions in a drawing                        | Introduction to Solid Modeling: Chapter 23                                      |
|                    | Describe how to edit a hole table   | Introduction to Solid Modeling: Chapter 25                                      |
|                    | Describe how to modify a parts list   | Introduction to Solid Modeling: Chapter 23                                      |
|                    | Demonstrate How to edit a section view  | Introduction to Solid Modeling: Chapter 22                                      |
| Assembly Modeling  | Describe the process of finding the minimum distance between parts and components | Introduction to Solid Modeling: Chapter 17                                      |
|                    | Describe the function of the different assembly constraints                       | Introduction to Solid Modeling: Chapter 15                                      |
|                    | Describe how to modify a bill of materials  | Introduction to Solid Modeling: Chapter 24                                      |
|                    | Explain the method of creating a frame using the frame generator command          | Advanced Part Modeling: Chapter TBD   |
|                    | Identify uses for surfaces in the modeling process                                | Advanced Part Modeling: Chapter 8   |
| Presentation Files | Describe how to animate a presentation file                                       | Introduction to Solid Modeling: Chapter 18                                      |
| Advanced Modeling  | Describe the process to emboss text and a profile                                 | Advanced Part Modeling: Appendix A  |
|                    | Create and constrain sketch blocks  | Advanced Part Modeling: Appendix B and Advanced Assembly Modeling: TBD          |
|                    | Describe the process of creating an iAssembly                                     | Advanced Assembly Modeling: TBD   |
|                    | Describe the process to create an iPart   | Advanced Part Modeling: Chapter 12  |
| Sheet Metal        | Demonstrate how to create and edit a sheet metal flat pattern                     | Sheet Metal Design: Chapter TBD   |
|                    | Describe the different types of sheet metal flanges that Inventor can create      | Sheet Metal Design: Chapter TBD   |
|                    | Demonstrate how to annotate a sheet metal part in a drawing                       | Sheet Metal Design: Chapter TBD   |

Where TBD is noted, this indicates the book is not yet published. Publication is expected in late Spring 2010.



## 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

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## ASCENT courseware mapping reference for Autodesk Certification Exam objectives

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

| Exam Sections     | Exam Objectives   | Training Guide & Chapter   |
|-------------------|---|--|
| Part Modeling     | Create extrude features   | Introduction to Solid Modeling: Chapters 2 & 5                                   |
|                   | Create hole features  | Introduction to Solid Modeling: Chapter 6  |
| Drawing           | Demonstrate how to edit a section view  | Introduction to Solid Modeling: Chapter 22                                       |
|                   | Create a slice view in a drawing  | Introduction to Solid Modeling: Chapter 22                                       |
|                   | Demonstrate how to modify a style in a drawing                                    | Introduction to Solid Modeling: Chapter 22 and Advanced Part Modeling: Chapter 1 |
| Assembly Modeling | Apply assembly constraints  | Introduction to Solid Modeling: Chapter 15                                       |
|                   | Create a part in the context of an assembly                                       | Introduction to Solid Modeling: Chapter 20                                       |
|                   | Create components using the Design Accelerator commands                           | Advanced Assembly Modeling: TBD  |
|                   | Create and edit a frame using the Frame Generator command                         | Advanced Assembly Modeling: TBD  |
|                   | Create a level of detail  | Advanced Assembly Modeling: TBD  |
|                   | Create a positional representation  | Advanced Assembly Modeling: TBD  |
| Advanced Modeling | Create a 3D path using the Intersection Curve and the Project to Surface commands | Advanced Assembly Modeling: Chapter 3  |
|                   | Create a multi-body part  | Advanced Part Modeling: Chapter 2<br>Advanced Assembly Modeling: Chapter TBD     |
|                   | Create a part using surfaces  | Advanced Part Modeling: Chapters 8 & 9   |
|                   | Create an iPart   | Advanced Part Modeling: Chapter 12   |
|                   | Create a loft feature   | Introduction to Solid Modeling: Chapter 12 and Advanced Part Modeling: Chapter 5 |
|                   | Create plastic part features  | <i>Not covered in ASCENT material</i>  |
|                   | Create a sweep feature  | Introduction to Solid Modeling: Chapter 11 and Advanced Part Modeling: Chapter 5 |
| Sheet Metal       | Create flanges using the Flange, Contour Flange and Lofted Flange commands        | Sheet Metal Design: Chapter TBD  |
| Weldments         | Create a weldment   | Advanced Assembly Modeling: Chapter TBD  |

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