# Engineering Graphics/Drawing & CAD ~ Contents

- AutoCAD .......................................................... 88
- CAD Manuals ...................................................... 91
- Engineering Graphics & Drawing ............................. 84

## 2007 New Titles

- **BERTOLINE**
  - Fundamentals of Graphics Communications, 5e .......................... 84
- **BERTOLINE**
  - Fundamentals of Graphics Communications with Autodesk Inventor Software 06-07, 5e .......................... 85
- **HOWARD**
  - Introduction to Solid Modeling Using Solidworks, 2e .......................... 85
- **KELLEY**
  - Pro Engineer-Wildfire 3.0 Instructor, 3e ................................ 86, 92
- **LEACH**
  - Autocad 2006 Companion .............................................. 88
- **LEACH**
  - Autocad 2007 Instructor with Autodesk Inventor Software 06-07, 3e .......................... 89

## 2008 New Titles

- **HOWARD**
  - Introduction to Solid Modeling Using Solidworks, 3e .......................... 84, 91
- **JENSEN**
  - Engineering Drawing and Design, 7e ....................................... 84
- **KELLEY**
  - Pro Engineer-Wildfire Instructor, 4e ....................................... 86, 91
- **LEACH**
  - Autocad 2008 Instructor, 4e ............................................... 88
The Online Learning Center is enhanced with new exercises, the latest advances in the field. End-of-Chapter Problems have been updated and expanded to reflect content.

Practice Exercises, Practice Problems, Questions for Review, and each chapter, improving Bertoline's unique integration of design. "Design in Industry" boxes are updated and more closely tied to careers and people in the fields of graphics, CAD, and design.

NEW TO THIS EDITION
- Photographs and computer screen shots in 4-color clearly illustrate the use of modern CAD tools in the real-world.
- Unique 3-D modeling chapter is devoted exclusively to the theory and practice of 3-D modeling.
- Step-by-step illustrated drawing technique examples clearly demonstrate how to create graphics and solve problems.
- Over 500 problems, cross-checked for accuracy, are included. Most end-of-chapter problems are parts or assemblies of modern devices and products.

NEW TO THIS EDITION
- The Use of SolidWorks to Accelerate the Product Development Cycle.
- A thoroughly contemporary approach to teaching essential technical graphics skills. The text presents solid modeling not just as a communication tool, but as an integral part of the design process. To this end, the book explores design intent, the use of solid models in the real world, and introduces techniques from manufacturing such as mold design and sheet metal patterning. Howard and Joseph Musto, both of the Milwaukee School of Engineering, teaches solid modeling using SolidWorks 2004. The text presents solid modeling not just as a communication tool, but as an integral part of the design process. To this end, the book explores design intent, the use of solid models in the real world, and introduces techniques from manufacturing such as mold design and sheet metal patterning.

NEW TO THIS EDITION
- "Dream High Tech Jobs" boxes introduce students to interesting careers and people in the fields of graphics, CAD, and design.
- "Design in Industry" boxes are updated and more closely tied to each chapter, improving Bertoline's unique integration of design content.
- Practice Exercises, Practice Problems, Questions for Review, and End-of-Chapter Problems have been updated and expanded to reflect the latest advances in the field.
- The Online Learning Center is enhanced with new exercises, projects, and links to web resources.
- More than 30 tear-out drawing worksheets are printed on uncoated paper for easy sketching.

FEATURES
- Unique Visualization Chapter assists the student in understanding the concepts and importance of visualization and offers techniques for reading and visualizing engineering drawings.
- Unique 3-D modeling chapter is devoted exclusively to the theory and practice of 3-D modeling.
- Step-by-step illustrated drawing technique examples clearly demonstrate how to create graphics and solve problems.
- Over 500 problems, cross-checked for accuracy, are included. Most end-of-chapter problems are parts or assemblies of modern devices and products.
- An online learning center (OLC) provides students with free access to interactive exercises, animations, self-grading quizzes, chapter summaries, case studies, a team 3-D project, and more. Instructors have secure access to the Solutions Manual, Instructor’s Manual, presentation materials including an image bank, and additional exercises.

FEATURES
- Unique 3-D modeling chapter is devoted exclusively to the theory and practice of 3-D modeling.
- Step-by-step illustrated drawing technique examples clearly demonstrate how to create graphics and solve problems.
- Over 500 problems, cross-checked for accuracy, are included. Most end-of-chapter problems are parts or assemblies of modern devices and products.
- An online learning center (OLC) provides students with free access to interactive exercises, animations, self-grading quizzes, chapter summaries, case studies, a team 3-D project, and more. Instructors have secure access to the Solutions Manual, Instructor’s Manual, presentation materials including an image bank, and additional exercises.
- CAD books are available in packages for those who wish to cover specific programs such as AutoCAD and Pro/E. Visit www.mhhe.com/ for information about CAD titles to be used with Fundamentals of Graphics Communication.

INTRODUCTION TO SOLID MODELING USING SOLIDWORKS
Second Edition

Geared toward an introductory course in solid modeling, Introduction to Solid Modeling Using SolidWorks by Edward Howard and Joseph Musto, both of the Milwaukee School of Engineering, teaches solid modeling using SolidWorks 2004. The text presents solid modeling not just as a communication tool, but as an integral part of the design process. To this end, the book explores design intent, the use of solid models in the real world, and introduces techniques from manufacturing such as mold design and sheet metal patterning. Howard and Musto’s provide a student-friendly presentation filled with easy-to-use tutorials. Their approach is also designed to help students understand how engineering is used in the real world. For instance, modeling exercises are largely centered on examples drawn from industrial applications. As well, “Future Study” boxes introduce students to different topics they will study in their engineering programs.

FEATURES
- Solid Modeling is treated not just as a communication tool, but as an integrated part of the design process.
- Explores the idea of “design intent,” and the challenges involved in embedding design constraints within a solid model.
- Expouses students to the use of solid models in engineering analysis; the ability of solid modeling software to perform vector operations, kinematic analysis, animation, interference detection, and...
mass property computation will be explored.

- Gives students an introduction to techniques from manufacturing, mold design, sheet metal patterning, and stereolithography representations will be introduced.
- Modeling exercises are largely centered on examples drawn from industrial applications; most exercises and problems feature mechanical and structural components (flanges, fasteners, I-beams, springs, etc.), rather than the "widgets" found in many introductory engineering graphics texts.
- “Future Study” boxes are used to direct students to the topical areas they will be exploring in typical engineering programs, and how those topics relate to the examples and exercises found in the text.

**CONTENTS**

1 Basic Part Modeling Techniques. 2 Engineering Drawings. 3 Additional Part Modeling Techniques. 4 Use of Parametric Modeling Techniques. 5 Advanced Concepts in Part Modeling. 6 Building Assembly Models from Part Models. 7 Advanced Assembly Operations. 8 Creating Assembly Drawings. 9 Using SolidWorks for the Generation of 2-D Layouts. 10 Application of SolidWorks to Vector Mechanics. 11 Using SolidWorks in the Design and Analysis of Mechanisms. 12 The Use of SolidWorks as a Tool for Manufacturing: Mold Design and Sheet Metal Parts. 13 The Use of SolidWorks to Accelerate the Product Development Cycle.

**NEW TO THIS EDITION**

- The text details the new features of Pro/ENGINEER Wildfire 3.0 including the addition of the chamfer tool, axial pattern option, and a Drawing View dialog box for the creation of views.
- The text is designed to serve as a tutorial, reference, and lecture guide, and is appropriate as a course text or self-paced independent study guide. Chapters start by covering selected topics in moderate detail, followed by one or more tutorials covering the chapter’s objectives and topics. At the end of each chapter, practice problems are used to reinforce concepts covered in the chapter and previously in the book. An accompanying website contains solutions for instructors as well as ancillary materials for reading and download.

**FEATURES**

- Each chapter begins with a reference portion designed to provide a step-by-step guide for performing specific Pro/ENGINEER modeling tasks outside of a tutorial environment.
- Numbered tutorials follow the reference sections to help users navigate this procedure-intensive computer-aided design application.
- Modeling Point Boxes are shaded boxes used throughout the text to highlight specific modeling strategies.
- The book's modular organization allows flexibility in course structure.
- Object files (part, assembly, drawing) are available for download from the book's website. Instructors will also have access to solutions to end-of-chapter problems and additional problems.

**INTRODUCTION TO GRAPHICS COMMUNICATIONS FOR ENGINEERS (B.E.S.T. SERIES)**

**Third Edition**

by Gary Robert Bertoline, Purdue University - West Lafayette 2006 / 256 pages / Softcover


(w/ Autodesk Inventor Software 06-07)

Information about the series. Links to contact Primis as well as reviewers/author forms. (Browse http://www.mhhe.com/engcs/general/best)

Introduction to Graphics Communication for Engineers is a short introductory technical drawing text intended for use in technical drawing or drafting courses at two and four year schools or other technology programs. Powerful computers and CAD software are of little use to engineers who do not fully understand the fundamentals of graphics communication principles and 3-D modeling strategies, or do not possess a level of visualization ability. Because of this, Bertoline concentrates on the concepts and skills necessary to sketch and create 2-D drawings and 3-D CAD models in this text. New to the third edition are “Design in Industry Boxes” that
cover an aspect of design as practiced in industry. Quotes and interesting stories from practicing engineers make the boxes motivating and informative for students. Also new are practice sketching problems included throughout each chapter, which allow students a chance to practice what they are learning. This book is part of the B.E.S.T. (Basic Engineering Series and Tools), which consists of modularized textbooks offering virtually every topic and specialty likely to be of interest to engineers.

NEW TO THIS EDITION
- New “Design in Industry” boxes have been added to the fourth edition. Each of these boxes cover some aspect of design as practiced in industry. Students will learn how design is done in the real world from these interesting stories presented by practicing engineers and technologists.
- New to this edition are practice problems located throughout each chapter. This new feature gives students drawing practice as they learn new concepts. Through immediate hands-on practice, students can more readily grasp chapter material.
- New end-of-chapter sketching problems have been added, reinforcing what students have learned in the chapter.

Features
- Pedagogically sound, this book provides a list of objectives at the beginning of each chapter, step-by-step instructions on how to draw, and a wide assortment of problems that can be assigned to reinforce topics covered.
- Sketching worksheets are integrated into the end of each chapter. These worksheets are excellent for sketching assignments, used to augment CAD work.
- As part of the McGraw-Hill B.E.S.T. (Basic Engineering Series and Tools), this book can be customized on-line and combined with other BEST titles to be sold to students either in an electronic form or traditional book form.

CONTENTS

International Edition

THE COMPLETE TECHNICAL ILLUSTRATOR
by Jon M. Duff and Greg Maxson
2004 / 656 pages
(with Bind-In Card)

The website contains all art files from the text and links to useful internet resources. (Browse http://highered.mcgraw-hill.com/sites/0072529962)

The Complete Technical Illustrator offers comprehensive access to information on every aspect of technical illustration using the most popular software packages. It is appropriate for students of engineering and computer graphics as well as professional technical illustrators. The authors present strategies and procedures for applying knowledge about geometry, assemblies, materials, and processes to communicate technical information. The result is that, in a single volume, the reader has an authoritative guide to the study, learning, and practice of presenting technical information in a visual form. A CD-ROM accompanies the text and provides users with: a productivity tool called “AxonHelper,” designed by Jon Duff to simplify many of the calculations necessary to make accurate Axonometric constructions; examples of the most popular illustration tools; a web browser-driven technical illustration course; examples of textures and materials from Greg Maxson’s studio; and a gallery of professional illustrations.

CONTENTS

International Edition

TECHNICAL GRAPHICS COMMUNICATION
Third Edition
by Gary Robert Bertoline, Purdue University, West Lafayette, and Eric N. Wiebe, North Carolina State University, Raleigh
2003 / 1,184 pages

CONTENTS

International Edition

ENGINEERING DRAWING
Sixth Edition
by Albert Boundy
2001 / 350 pages
(with Sketchbook)
[IE with Sketchbook]
(McGraw-Hill Australia Title)

CONTENTS
Engineering Graphics/Drawing & CAD

AUTOCAD 2007 INSTRUCTOR WITH AUTOESKINVENTOR SOFTWARE 06-07
Third Edition
by James A. Leach, University of Louisville
2007 (July 2006) / 1472 pages / Softcover
http://www.mhhe.com/leach

AutoCAD 2006 Instructor is intended for instructor-lead instruction and self-instruction in AutoCAD software. AutoCAD is the market leader for all CAD software and is used by nearly two million students and professionals in architecture, engineering, construction, and design. AutoCAD 2006 Instructor makes it easy to upgrade from previous versions of AutoCAD by the use of a 2006 bar in the margin that highlights the new features. Developed from teaching techniques used in an authorized AutoCAD Training Center and in instruction for engineering colleges, AutoCAD 2006 Instructor covers all features and capabilities of AutoCAD. The text is command-oriented so chapters are centered around groups of related commands. This feature makes the text very effective as a reference text. The chapters are structured in a practical/pedagogical sequence beginning with instruction in general procedures for using the computer interface, setting up and creating drawings, and then progressing to advanced features such as dimensioning, special drawing applications and AutoCAD features, three-dimensional modeling and rendering, and software customization.

FEATURES
1. Complete coverage of AutoCAD 2006, 44 Chapters, 1600 figures, 1400 pages. 2. Pedagogical progression, command-oriented, chapters progress from simple to complex and from concept to details. 3. Excellent reference text including: 24-page Index, Table of Command Access, Tables of Limit Settings, Tables of Template Drawings, Dimension Variables Table, System Variables Table, Command Alias Tables, and more. 4. Chapter Objectives, Step-by-step Chapter Exercises, Practice Tables, Professional Tips, AutoCAD 2005 and 2006 update indicators. 5. Ancillary material available on Website including: Chapter Tests (25 T/F, M/C, Fill-in questions), Additional Chapter Exercises, Additional Advanced Chapters, Solutions Manual. What is New? 1. New Textbook Design: new fonts, headers, chapter openers, Tip icons, 2005 and 2006 bars, new indicators for multi-chapter exercises. 2. Many new and enhanced commands are fully explained such as: Copy, Stretch, Rotate, Scale, Chamfer, Fillet, Offset, Trim, Extend, Rectangle, Join, Mline, Mtext, Scalelistedit, Eattext, Hatch, Dimarc, Dimogged, Osnapz, Toolbars, Layer, Vpmin, Vpmax, Table, Field, Publish, Revcloud and more. 3. Coverage of Dynamic Input. This new feature in AutoCAD (specify a point by a distance dimension and angular dimension) is fully explained with examples and applications, and is covered throughout the book. 4. Coverage of Dynamic Blocks. The new book explains how to create Blocks in AutoCAD that can be edited directly in the drawing by key grips that allow you to stretch, rotate, scale, array, flip, etc. specific parts of the block geometry based on specific parameters. 5. New Chapter on Sheet Sets. The new book explains how to combine multiple .DWG files into one complete set of drawings for a specific project. Instructions on how to control sheet numbers, lists, title blocks, references, and plotting globally for the set rather than for each sheet individually. McGraw-Hill is proud to be one of the first and few publishers to have a text on AutoCAD 2006.

NEW TO THIS EDITION
1. Command Tables throughout the book indicate how every command can be invoked, including icon buttons, command aliases, shortcut menus, pull-down menus, etc. 2. AutoCAD 2004 Instructor is organized in a reference guide, with material easily located on the numerous “tabbed” pages and tables, command table index, organization by command, 2004 bars, and a thorough index. 3. Over 1500 illustrations are used to support the concepts and commands in the text. 4. Discussion of Tool Palette use and customization in chapter 21.

2004 bar to highlight new AutoCAD 2004 features. 1. Approximately 800 new screen captures. 2. Online chapter on Express Tools. 3. Discussion of password protection and digital signatures for drawing files and Shadeplot for printing shaded or rendered drawings. 4. Learn how to set up Communication Center to automatically receive software updates and information from Autodesk. 5. Online Learning Center with Web-only advanced chapters, graphic downloads, review questions from a variety of disciplines, ancillary chapter exercises.

CONTENTS
1 Getting Started. 2 Working with Files. 3 Draw Command Concepts. 4 Selection Sets. 5 Helpful Commands. 6 Basic Drawing Setup. 7 Object Snap and Object Snap Tracking. 8 Draw Commands I. 9 Modify Commands I. 10 Viewing Commands. 11 Layers and Object Properties. 12 Advanced Drawing Setup. 13 Layouts and Viewsports. 14 Printing and Plotting. 15 Draw Commands II. 16 Modify Commands II. 17 Inquiry Commands. 18 Creating and Editing Text. 19 Internet Tools. 20 Advanced Selection Sets. 21 Blocks, DesignCenter, and Tool Palettes. 22 Block Attributes. 23 Grip Editing. 24 Multiview Drawing. 25 Pictorial Drawings. 26 Section Views. 27 Auxiliary Views. 28 Dimensioning. 29 Dimension Styles and Dimension Variables. 30 References. 31 Object Linking and Embedding (OLE). 32 Raster Images And Vector Files. 33 Advanced Layouts and Plotting. 34 3D Modeling Basics. 35 3D Display and Viewing. 36 User Coordinate Systems. 37 Wireframe Modeling. 38 Solid Modeling Construction. 39 Advanced Solids Features. 40 Surface Modeling. 41 Rendering. 42 Creating 2D Drawings From 3D Models. 43 Miscellaneous Commands and Features. 44 Basic Customization. 45 Menu Customization [Web-only chapter]. 46 CAD Management [Web-only chapter]. 47 Express Tools and Batch Plotting [Web-only chapter]. Appendix A System Variables. Appendix B Command Alias List Sorted by Command. Appendix C Command Alias List Sorted by Alias. Appendix D Buttons and Special Keys. Appendix E Command Table Index

AUTOCAD 2006 INSTRUCTOR
Second Edition
by James A. Leach, University of Louisville -Louisville
2006 / Softcover / 1456 pages
http://www.mhhe.com/leach

This website contains book information, ancillary chapter exercises, sample pages and password protected solutions manual. AutoCAD 2006 Instructor is intended for instructor-lead instruction and self-instruction in AutoCAD software.

AutoCAD is the market leader for all CAD software and is used by nearly two million students and professionals in architecture, engineering, construction, and design. AutoCAD 2006 Instructor makes it easy to upgrade from previous versions of AutoCAD by the use of a 2006 bar in the margin that highlights the new features. Developed from teaching techniques used in an authorized AutoCAD Training Center and in instruction for engineering colleges, AutoCAD 2006 Instructor covers all features and capabilities of AutoCAD. The text is command-oriented so chapters are centered around groups of related commands. This feature makes the text very effective as a reference text. The chapters are structured in a practical/pedagogical sequence beginning with instruction in general procedures for using the computer interface, setting up and creating drawings, and then progressing to advanced features such as dimensioning, special drawing applications and AutoCAD features, three-dimensional modeling and rendering, and software customization.

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Engineering Graphics/Drawing & CAD

Exercises, Practice Tables, Professional Tips, AutoCAD 2005 and 2006 update indicators. 5. Ancillary material available on Website including: Chapter Tests, 25 T/F, 8 MC, Fill-in questions, Additional Chapter Exercise sets for Architectural, Civil, and Mechanical applications, Additional Advanced Chapters, Solutions Manual. What is New? 1. New Textbook Design: new fonts, headers, chapter openers, Tip icons, 2003 and 2006 bars, new indicators for multi-chapter exercises. 2. Many new and enhanced commands are fully explained such as, Copy, Stretch, Rotate, Scale, Chamfer, Fillet, Offset, Trim, Extend, Rectangle, Join, Mline, Mtext, Scalelistedit, Eattxt, Hatch, Dimarc, Dimjogged, Osnapz, Toolbars, Layer, Vpmn, Vpmx, Table, Field, Publish, Revcloud and more. 3. Coverage of Dynamic Input. This new feature in AutoCAD (specify a point by a distance dimension and angular dimension) is fully explained with examples and applications, and is applied throughout the book. 4. Coverage of Dynamic Blocks. The new book explains how to create Blocks in AutoCAD that can be edited directly in the drawing by key grips that allow you to stretch, rotate, scale, array, flip, etc. specific parts of the block geometry based on specific parameters. 5. New Chapter on Sheet Sets. The new book explains how to combine multiple .DWG files into one complete set of drawings for a specific project. Instructions on how to control sheet numbers, lists, title blocks, references, and plotting globally for the set rather than for each sheet individually. McGraw-Hill is proud to be one of the first and few publishers to have a text on AutoCAD 2006.

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• AutoCAD 2004 Instructor is organized as a reference guide, with material easily located on the numerous "tabbed" pages and tables, command table index, organization by command, 2004 bars, and a thorough index.
• Over 1500 illustrations are used to support the concepts and commands in the text.
• Discussion of Tool Palette use and customization in chapter 21.
• 2004 bar to highlight new AutoCAD 2004 features.
• Approximately 800 new screens capture.
• Online chapter on Express Tools.
• Discussion of password protection and digital signatures for drawing files and Shade plot for printing shaded or rendered drawings.
• Learn how to set up Communication Center to automatically receive software updates and information from Autodesk.
• Online Learning Center with Web-only advanced chapters, graphic downloads, review questions from a variety of disciplines, ancillary chapter exercises.

CONTENTS


AUTOCAD 2004 COMPANION
by James A Leach, University of Louisville—Louisville 2005
(with Bind-In Eng Sub Card)
(with AutoCAD 2005 Update)
AutoCAD 2004 Companion provides material typically covered in a one-semester AutoCAD course. It covers the essentials of 2D design and drafting as well as solid modeling. AutoCAD 2004 Companion can be used as a stand-alone AutoCAD text or with other discipline-specific graphics texts such as Bertoline’s Technical Graphics Communication or Fundamentals of Graphics Communication. AutoCAD is the market leader for all CAD software and is used by nearly two million students and professionals in architecture, engineering, construction, and design. AutoCAD 2004 Companion makes it easy to upgrade from previous versions of AutoCAD by the use of a 2004 bar in the margin that highlights the new features. Developed from teaching techniques used in an authorized AutoCAD Training Center and in instruction for engineering colleges, AutoCAD 2004 Companion covers all features and capabilities of AutoCAD. The text is command-oriented so chapters are centered around groups of related commands. This feature makes the text very effective as a reference text. The chapters are structured in a practical/educational sequence beginning with instruction in general procedures for using the computer interface, setting up and creating drawings, and then progressing to advanced features such as dimensioning, special drawing applications and AutoCAD features, three-dimensional modeling and rendering, and software customization. McGraw-Hill is proud to be one of the first and few publishers to have a text on AutoCAD 2004.

FEATURES

• About 500 new screen captures are included to illustrate the new look of AutoCAD 2004 and the Microsoft XP operating system.
• Discussion of Tool Palette use and customization, Qnew, and Shadeplot.
• Covers password protection for drawing files and Shadeplot for printing shaded or rendered drawings.
• Details editing with the new, simpler Grips
• New AutoCAD 2004 features are highlighted with a 2004 bar.
• Website includes glossary, quizzes, password protected solutions manual, and more

CONTENTS

PROJECT-BASED AUTOCAD
by Glencoe/McGraw-Hill
2004
(A Glencoe/McGraw-Hill Title)

Project-Based AutoCAD is designed for students who want a more sophisticated, industry-based experience with design/drafting projects. It assumes knowledge of basic drafting principles and a limited knowledge of AutoCAD. Students will work their way through four in-depth projects, each focusing on a different aspect of real-world CAD.

CONTENTS
Project 1: Hydroelectric Turbine Nozzle Assembly. Two-dimensional working drawings for the manufacture of a nozzle Assembly. Project 2: Structural Field Assembly of Tire Converter. A look at the draftsman's role in documenting a prototype in the field. Project 3: 3D CAD/CAM: Compensator Swivel Bracket Preparation of AutoCAD files for use with computer-aided Machinery. Project 4: Mechanical Shaft Assembly. A concept project that illustrates the various factors the designer/drafter must consider when designing a mechanical assembly.

INTRODUCTION TO SOLID MODELING USING SOLIDWORKS
Third Edition
By William E. Howard, East Carolina University, and Joseph Musto, Milwaukee School Of Engineering
2008 (June 2007) / Softcover / 352 pages

The text presents solid modeling not just as a communication tool, but as an integral part of the design process. To this end the book explores design intent, the use of solid models in engineering analysis, and introduces techniques from manufacturing such as mold design and sheet metal pattern. Howard and Musto provide a student-friendly presentation filled with easy-to-use tutorials. Their approach is also designed to help students understand how engineering is used in the real world. For instance, modeling exercises are largely centered on examples drawn from industrial applications. As well, "Future Study" boxes introduce students to different topics they will study in their engineering programs.

NEW TO THIS EDITION
• The text has been updated to reflect the new features of SolidWorks.
• Newly updated and enhanced "Future Study" boxes are used to direct students to the topical areas they will be exploring in typical engineering programs, and how those topics relate to the examples and exercises found in the text.
• Explores the idea of "design intent" through boxed sidebars updated for the new edition, as well as the challenges involved in embedding design constraints within a solid model.
• A four-color Guide to SolidWorks Tutorials has been added to the inside front cover for easy reference.
• Chapter Objectives have been expanded and enhanced to better introduce chapter concepts.
• A new interior design renders the text more user-friendly and visually appealing.

FEATURES
• Gives students an introduction to techniques from manufacturing; mold design, sheet metal patterning, and stereolithography representations will be introduced.
• Solid Modeling is treated not just as a communication tool, but as an integrated part of the design process.
• Exposes students to the use of solid models in engineering analysis; the ability of solid modeling software to perform vector operations, kinematic analysis, animation, interference detection, and mass property computation will be explored.
• Modeling exercises are largely centered on examples drawn from industrial applications; most exercises and problems feature mechanical and structural components (flanges, fasteners, I-beams, springs, etc.), rather than the "widgets" found in many introductory engineering graphics texts.
• Additional resources are available on the website. Including on the website are tutorials for two popular SolidWorks Add-Ins, COSMOSMotion and PhotoWorks, and the book figures in PowerPoint format. Instructors can also access model files for all tutorials and problems.

CONTENTS
PART ONE Learning SolidWorks. 1 Basic Part Modeling Techniques. 2 Engineering Drawings. 3 Additional Part Modeling Techniques. 4 Use of Parametric Modeling Techniques. 5 Advanced Concepts in Part Modeling. 6 Building Assembly Models from Part Models. 7 Advanced Assembly Operations. 8 Creating Assembly Drawings. PART TWO Applications of SolidWorks. 9 Using SolidWorks for the Generation of 2-D Layouts. 10 Application of SolidWorks to Vector Mechanics. 11 Using SolidWorks in the Design and Analysis of Mechanisms. 12 The Use of SolidWorks as a Tool for Manufacturing: Mold Design and Sheet Metal Parts. 13 The Use of SolidWorks to Accelerate the Product Development Cycle.

PRO ENGINEER-WILDFIRE INSTRUCTOR
Fourth Edition
by David S. Kelley, Central Michigan University
2008 (June 2007) / Softcover / 768 pages

The text details the new features of Pro/ENGINEER Wildfire 3.0 including the addition of the chamfer tool, axial pattern option, and a Drawing View dialog box for the creation of views. The text is designed to serve as a tutorial, reference, and lecture guide, and is appropriate as a course text or self-paced independent study guide. Chapters start by covering selected topics in moderate detail, followed by one or more tutorials covering the chapter's objectives and topics. At the end of each chapter, practice problems are used to reinforce concepts covered in the chapter and previously in the book.

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• Each chapter begins with a reference portion designed to provide a step-by-step guide for performing specific Pro/ENGINEER modeling tasks outside of a tutorial environment.
• Numbered tutorials follow the reference sections to help users navigate this procedure-intensive computer-aided design application.
• Modeling Point Boxes are shaded boxes used throughout the text to highlight specific modeling strategies.
• The book's modular organization allows flexibility in course structure.
• Object files (part, assembly, drawing) are available for download from the book's website. Instructors will also have access to solutions to end-of-chapter problems and additional problems.

CONTENTS
1 Introduction to Parametric Design. 2 Pro/ENGINEER's User Interface. 3 Constraint-Based Sketching. 4 Extruding, Modifying, and Redefining Features. 5 Feature Construction Tools. 6 Revolved Features. 7 Feature Manipulation Tools. 8 Creating a Pro/ENGINEER Drawing. 9 Sections and Advanced Drawing Views. 10 Swept and Blended Features. 11 Advanced Modeling Techniques. 12 Assembly Modeling. 13 Surface Modeling. Appendix A Supplemental Files. Appendix B Configuration File Options.
This revision of Kelley’s Pro/ENGINEER features the many user-friendly enhancements of the new version of Pro/ENGINEER Wildfire 3.0, while continuing with the strong pedagogical framework and tutorials that have made the previous editions so successful. The text is designed to serve as a tutorial, reference, and lecture guide, and is appropriate as a course text or self-paced independent study guide. Chapters start by covering selected topics in moderate detail, followed by one or more tutorials covering the chapter’s objectives and topics. At the end of each chapter, practice problems are used to reinforce concepts covered in the chapter and previously in the book. An accompanying website features solutions for instructors as well as ancillary materials for reading and download.

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- Object files (part, assembly, drawing) are available for download from the book’s website. Instructors will also have access to solutions to end-of-chapter problems and additional problems.

CONTENTS
1 Introduction to Parametric Design. 2 Pro/ENGINEER’s User Interface. 3 Constraint-Based Sketching. 4 Extruding, Modifying, and Redefining Features. 5 Feature Construction Tools. 6 Revolved Features. 7 Feature Manipulation Tools. 8 Creating a Pro/ENGINEER Drawing. 9 Sections and Advanced Drawing Views. 10 Swept and Blended Features. 11 Advanced Modeling Techniques. 12 Assembly Modeling. 13 Surface Modeling. Appendix A Supplemental Files. Appendix B Configuration File Options

AUTODESK INVENTOR
by James M. Leake, University of Illinois-Champaign
2004 / 350 pages
(with Bind-In Engg Sub Card)

This site contains tutorials, model files, powerpoints and solutions to chapter exercises. (Browse http://www.mhhe.com/leake)

Computer-Aided-Design has advanced rapidly. Originally developed to perform 2D manual drafting task, CAD software has developed into 3D surface and solid modeling. Autodesk Inventor is a prime example of this next generation CAD software. Autodesk Inventor is a tutorial based textbook intended to provide beginners with the most important aspects of Autodesk Inventor. Each chapter will contain an introduction as it relates to parametric modeling, tutorial and additional problems.

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