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The Official Guide to Certified SolidWorks Associate Exams: CSWA, CSDA, CSWSA-FEA is written to assist the SolidWorks user to pass the associate level exams.

Information is provided to aid a person to pass the Certified SolidWorks Associate (CSWA), Certified Sustainable Design Associate (CSDA) and the Certified SolidWorks Simulation Associate Finite Element Analysis (CSWSA FEA) exams.

There are three goals for this book. The primary goal is not only to help you pass the CSWA, CSDA and CSWSA-FEA exams, but also to ensure that you understand and comprehend the concepts and implementation details of the three certification processes. The second goal is to provide the most comprehensive coverage of CSWA, CSDA and CSWSA-FEA exam related topics available, without too much coverage of topics not on the exam. The third and ultimate goal is to get you from where you are today to the point that you can confidently pass the CSWA, CSDA and the CSWSA-FEA exam. The Certified SolidWorks Associate (CSWA) certification indicates a foundation in and apprentice knowledge of 3D CAD design and engineering practices and principles. Passing this exam provides students the chance to prove their knowledge and expertise and to be part of a worldwide industry certification standard. The Certified Sustainable Design Associate (CSDA) certification indicates a foundation in and apprentice knowledge of demonstrating an

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understanding in the principles of environmental assessment and sustainable design. The Certified SolidWorks Simulation Associate Finite Element Analysis (CSWSA-FEA) certification indicates a foundation in and apprentice knowledge of demonstrating an understanding in the principles of stress analysis, and finite element analysis. SolidWorks 2012 or higher is required to take the exam.

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SolidWorks 2013 Part I - Basic Tools introduces new users to the SolidWorks interface, SolidWorks tools and basic modeling techniques. It provides readers with a strong understanding of SolidWorks and covers the creation of parts, assemblies and drawings. Every lesson and exercise in this book was created based on real world projects. Each of these projects have been broken down and developed into easy and comprehensible steps for the reader. Furthermore, at the end of every chapter there are self test questionnaires to ensure that the reader has gained sufficient knowledge from each section before moving on to more advanced lessons. This book takes the approach that in order to understand SolidWorks, inside and out, the reader should create everything from the beginning and take it step by step. Gindis introduces AutoCAD with step by step instructions, stripping away complexities to begin working in AutoCAD immediately. All concepts are explained first in theory, and then shown in practice, helping the reader understand what it is they are doing and why, before they do it. Divided into three parts, the book covers beginning through advanced AutoCAD, including 3D features. Also included is an extensive Appendix for each part, detailing additional useful CAD-related information not often found in other text books The book contains supporting graphics (screen shots) and a

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summary with a self-test section at the end of each chapter. Also included are drawing examples and exercises, and two running “projects? that the student works on as he/she progresses through the chapters . 1) Strips away complexities, both real and perceived and reduces AutoCAD to easy-to-understand basic concepts. 2) Teaches only what is essential to operating AutoCAD first, thereby immediately building student confidence. 3) All basic commands are documented step-by-step, meaning that what the student needs to type in and how AutoCAD responds is all spelled out in discrete and clear steps with screen shots added as needed. 4) Using the author's extensive multi-industry knowledge of what is important and widely used in practice versus what is not, the material is presented by immediately immersing the student in practical, critically essential knowledge, with no padding of text or filler material. 5) All concepts are explained first in theory, and only then is AutoCAD introduced and the actual “button pushing? discussed. This is one of the key concepts in having students understand exactly what it is they are doing and why, before they do it.

SolidWorks 2012 Tutorial with Video Instruction is target towards a technical school, two year college, four year university or industry professional that is a beginner or intermediate CAD user. The text provides a student who is looking for a step-by-step project based approach to learning SolidWorks with an enclosed 1.5 hour video instruction DVD, SolidWorks model files, and preparation for the CSWA exam. The book is divided into two sections. Chapters 1 - 7 explore the SolidWorks User Interface and CommandManager, Document and System properties, simple machine parts, simple and complex assemblies, design tables, configurations, multi-sheet, multi-view drawings, BOMs, Revision tables using basic and advanced features along with

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Intelligent Modeling Techniques, SustainabilityXpress, SimulationXpress and DFMXpress. Chapters 8 - 11 prepare you for the new Certified SolidWorks Associate Exam (CSWA). The CSWA certification indicates a foundation in and apprentice knowledge of 3D CAD and engineering practices and principles. Follow the step-by-step instructions and develop multiple assemblies that combine over 100 extruded machined parts and components. Formulate the skills to create, modify and edit sketches and solid features. Learn the techniques to reuse features, parts and assemblies through symmetry, patterns, copied components, design tables and configurations. Learn by doing, not just by reading! Desired outcomes and usage competencies are listed for each chapter. Know your objective up front. Follow the steps in each chapter to achieve your design goals. Work between multiple documents, features, commands, custom properties and document properties that represent how engineers and designers utilize SolidWorks in industry.

The primary goal of Introduction to Finite Element Analysis Using SolidWorks Simulation 2013 is to introduce the aspects of Finite Element Analysis (FEA) that are important to engineers and designers. Theoretical aspects of FEA are also introduced as they are needed to help better understand the operation. The primary emphasis of the text is placed on the practical concepts and procedures needed to use SolidWorks Simulation in performing Linear Static Stress Analysis and basic Model Analysis. This text covers SolidWorks Simulation and the lessons proceed in a pedagogical fashion to guide you from constructing basic truss elements to generating three-dimensional solid elements from solid models. This text takes a hands-on, exercise-intensive approach to all the important FEA techniques and concepts. This textbook contains a series of thirteen tutorial style lessons designed to introduce beginning FEA users to SolidWorks Simulation. The

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basic premise of this book is that the more designs you create using SolidWorks Simulation, the better you learn the software. With this in mind, each lesson introduces a new set of commands and concepts, building on previous lessons.

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Beginner's Guide to SolidWorks 2012 – Level II starts where Beginner's Guide – Level I ends, following the same easy to read style, but this time covering advanced topics and techniques. The purpose of this book is to teach advanced techniques including sheet metal, surfacing, how to create components in the context of an assembly and reference other components (Top-down design), propagate design changes with SolidWorks' parametric capabilities, mold design, welded structures, and more while explaining the basic concepts of each trade to allow you to understand the how and why of each operation. The author uses simple examples to allow you to better understand each command and environment, as well as to make it easier to explain the purpose of each step, maximizing the learning time by focusing on one task at a time. This book is focused on the processes to complete the modeling of a part, instead of focusing on individual software commands or operations, which are generally simple enough to learn. At the end of this book, you will have acquired enough skills to be highly competitive when it comes to designing with SolidWorks, and while there are many

less frequently used commands and options available that will not be covered in this book, rest assured that those covered are most of the commands used every day by SolidWorks designers. The author strived hard to include the commands required in the Certified SolidWorks Associate test as listed on the SolidWorks website, and some, as well as several more.

Drawing and Detailing with SolidWorks 2012 is written to educate and assist students, designers, engineers, and professionals in the drawing and detailing tools of SolidWorks. Explore the learning process through a series of design situations, industry scenarios, projects, and objectives target towards the beginning to intermediate SolidWorks user. Work through numerous activities to create multiple-view, multiple-sheet, detailed drawings, and assembly drawings. Develop Drawing templates, Sheet formats, and Custom Properties. Construct drawings that incorporate part configurations, assembly configurations, and design tables with equations. Manipulate annotations in parts, drawings, assemblies, Revision tables, Bills of Materials and more. Apply your drawing and detailing knowledge to over thirty exercises. The exercises test your usage competency as well as explore additional topics with industry examples. Advanced exercises require the ability to create parts and assemblies. Drawing and Detailing with

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SolidWorks 2012 is not a reference book for all drafting and drawing techniques and tools. The book provides information and examples in the following areas: History of engineering graphics, manual sketching techniques, orthographic projection, isometric projection, multi-view drawings, dimensioning practices, fasteners in general, tolerance and fit and the history of CAD leading to the development of SolidWorks. Start a SolidWorks 2012 session and to understand the following interfaces: Menu bar toolbar, Menu bar menu, Drop-down menus, Context toolbars, Consolidated drop-down toolbars, System feedback icons, Confirmation Corner, Heads-up View toolbar, Document Properties and more. Apply Document Properties to reflect the ASME Y14 Engineering Drawing and related Drawing Practices. Import an AutoCAD file as a Sheet format. Insert SolidWorks System Properties and Custom Properties. Create new SolidWorks Document tabs. Create multi-sheet drawings from various part configurations and develop the following drawing views: Standard, Isometric, Auxiliary, Section, Broken Section, Detail, Half Section (Cut-away), Crop, Projected Back, with a Bill of Materials and a Revision Table and Revisions. Insert and edit: Dimensions, Feature Control Frames, Datums, Geometric Tolerancing, Surface Finishes, and Weld Symbols using DimXpert and manual techniques. Create, apply, and save

Blocks and Parametric Notes in a drawing. Chapter 10 provides a bonus section on the Certified SolidWorks Associate CSWA program with sample exam questions and initial and final SolidWorks models. The book is designed to compliment the SolidWorks Users Guide, SolidWorks Reference Guide, Standards, Engineering Drawing/Design and Graphics Communications reference books. The authors recognize that companies utilize additional drawing standards. The authors developed the industry scenarios by combining industry experience with their knowledge of engineers, sales, vendors and manufacturers. These professionals are directly involved with SolidWorks everyday. Their work goes far beyond a simple drawing with a few dimensions. They create detailed drawings, assembly drawings, marketing drawings and customer drawings. SolidWorks users work between drawings, parts, assemblies and many other documents to complete a project on time.

Up and Running with Autocad® 2013 started out as a set of classroom notes that outlined, in an easy to understand manner, exactly how AutoCAD is used and applied, in contrast to theoretical musings or clinical descriptions of the commands as found in other books. This book attempts to use experience and top-level knowledge to sort out what is important and what is secondary, and to explain the essentials in plain language. This volume comprises 20

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chapters, beginning with the AutoCAD fundamentals. The following chapters then focus on layers, colors, linetypes, and properties; text, Mtext, editing, and style; and hatch patterns; dimensions; blocks, Wblocks, dynamic blocks, groups, and purge. Other chapters cover polar, rectangular, and path arrays; basic printing and output; advanced linework; options, shortcuts, CUI, design center, and express tools; advanced design and file management tools; advanced output and pen settings; and isometric drawing. Each chapter in the book ends with a summary and some review questions to aid the reader in retaining essential concepts. This book will be of interest to engineers, architects, and industrial designers.

Assembly Modeling with SolidWorks 2012 is written to assist the beginning SolidWorks user with a few months of design experience to the intermediate SolidWorks user who desires to enhance their skill sets in assembly modeling. The book provides a solid foundation in assembly modeling using competency-based projects. In step-by-step instructions, the book provides examples to: Start a SolidWorks session and to understand the following interfaces: Menu bar toolbar, Menu bar menu, Drop-down menus, Context toolbars, Consolidated drop-down toolbars, System feedback icons, Confirmation Corner, Heads-up View toolbar, CommandManager, and more. Set System Options and Document

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Properties as they apply to a part and assembly template. Create new SolidWorks folder locations: Document Templates, Reference Documents, and Design Library. Download components from 3D ContentCentral and rename and save components using SolidWorks Explorer. Apply the Bottom-up assembly approach with two levels of configurations using the Configure Component tool, the Configure Dimension tool, Design Tables, and the Add Configuration tool. Create new parts based on component features utilizing the Bottom-up assembly approach. Apply Standard Mates, SmartMates, and the Design Library Toolbox. Apply the Top-down assembly approach with two levels of configurations with In-Context components. Understand the following: Out-of-Context components, External References, InPlace Mates, redefining and replacing components and motion studies. Apply the Derived Feature Component Pattern tool, Linear Component Pattern tool, and the Mirror Component tool along with the Explode Line Sketch tool. Create a multi sheet, multi view assembly drawing. Knowledge of Custom Properties in a part/assembly and linked notes, with the ability to incorporate configurations of an Exploded view, Bill of Materials, Revision tables, and more. Address the Layout-based assembly approach and Global Variables and Equations to control relationships. Each chapter begins with the desired outcomes and

usage competencies. Explore assembly modeling techniques through a series of design situations, industry scenarios, projects and objectives. Chapter 9 provides a bonus section on the Certified SolidWorks Associate CSWA program with sample exam questions and initial and final SolidWorks models. Passing the CSWA exam proves to employers that you have the necessary fundamental engineering graphics and SolidWorks competencies. The book compliments and enhances the SolidWorks Tutorials. Although over 150 SolidWorks tools and commands are utilized in Assembly Modeling with SolidWorks 2012, the book is not a reference guide. The book is a self-paced tutorial in a realistic design setting. Complex models expose you to large assembly modeling techniques. You focus on the design process while learning the commands relative to assemblies. To obtain the most from this text, you should be familiar with the SolidWorks User Interface or other parametric modeling software application. Your skill sets should include the ability to create simple parts, assemblies, and drawings and manipulate documents through the Windows operating system. The authors developed the industry scenarios by combining their own industry experience with the knowledge of engineers, department managers, vendors and manufacturers. These professionals are directly involved with SolidWorks everyday. They create

assemblies with thousands of components and drawings with hundreds of sheets. Their responsibilities go far beyond the creation of just a 3D model.

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Part of a series based on an important global packaging meeting, which brings together packaging researchers from universities and industry, this book covers subjects such as: active/intelligent packaging, distribution packaging, medical, cosmetic and pharmaceutical packaging, food and agricultural packaging, and hazardous materials containers. Motion Simulation and Mechanism Design with SolidWorks Motion 2011 is written to help you become familiar with SolidWorks Motion, an add-on module of the SolidWorks software family. This book covers the basic concepts and frequently used commands required to advance readers from a novice to intermediate level in using SolidWorks Motion. SolidWorks Motion allows you to use solid models created in SolidWorks to simulate and visualize mechanism motion and performance. Using SolidWorks Motion early in the product development stage could prevent costly redesign due to design defects found in the physical testing phase. Therefore, using SolidWorks Motion contributes to a more cost effective, reliable, and efficient product design process. Basic concepts discussed in this book include model generation, such as creating assembly mates for proper motion; carrying out simulation and animation;

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and visualizing simulation results, such as graphs and spreadsheet data. These concepts are introduced using simple, yet realistic examples. Verifying the results obtained from the computer simulation is extremely important. One of the unique features of this book is the incorporation of theoretical discussions for kinematic and dynamic analyses in conjunction with the simulation results obtained using SolidWorks Motion. Verifying the simulation results will increase your confidence in using the software and prevent you from being fooled by erroneous simulations.

Engineering Graphics with SolidWorks 2012 and Video Instruction DVD is written to assist technical school, two year college, four year university instructor/student or industry professional that is a beginner or intermediate SolidWorks user. The book combines the fundamentals of engineering graphics and dimensioning practices with a step-by-step project based approach to learning SolidWorks with the enclosed 1.5 hour Video Instruction DVD. Learn by doing, not just by reading! The book is divided into two parts: Engineering Graphics and SolidWorks 3D CAD software. In Chapter 1 through Chapter 3, you explore the history of engineering graphics, manual sketching techniques, orthographic projection, isometric projection, multi-view drawings, dimensioning practices and the history of CAD leading to the development of SolidWorks. In Chapter 4 through Chapter 8, you apply engineering graphics fundamentals and learn the SolidWorks User Interface, Document and System properties, simple parts, simple and complex assemblies, design tables, configurations, multi-sheet,

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multi-view drawings, Bill of Materials, Revision tables, basic and advanced features. Follow the step-by-step instructions in over 70 activities to develop eight parts, four sub-assemblies, three drawings, and six document templates. Formulate the skills to create and modify solid features to model a 3D FLASHLIGHT assembly. Chapter 9 provides a bonus section on the Certified SolidWorks Associate CSWA program with sample exam questions and initial and final SolidWorks models. Passing the CSWA exam proves to employers that you have the necessary fundamental engineering graphics and SolidWorks competencies. Review individual features, commands, and tools for each project with the book's 1.5 hour Video Instruction DVD and SolidWorks Help. The chapter exercises analyze and examine usage competencies based on the project objectives. The book is designed to compliment the SolidWorks Tutorials located in the SolidWorks Help menu. Each section explores the SolidWorks Online User's Guide to build your working knowledge of SolidWorks. Desired outcomes and usage competencies are listed for each project. Know your objectives up front. Follow the step-by step procedures to achieve your design goals. Work between multiple documents, features, commands, and properties that represent how engineers and designers utilize SolidWorks in industry. The authors developed the industry scenarios by combining their own industry experience with the knowledge of engineers, department managers, vendors, and manufacturers. These professionals are directly involved with SolidWorks everyday. Their responsibilities go far beyond the

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creation of just a 3D model.

The Commands Guide Tutorial for SolidWorks 2013 is a comprehensive reference book written to assist the beginner to intermediate user of SolidWorks 2013. SolidWorks is an immense software package, and no one book can cover all topics for all users. This book provides a centralized reference location to address many of the tools, features and techniques of SolidWorks 2013. This book covers the following: System and Document properties FeatureManagers PropertyManagers ConfigurationManagers RenderManagers 2D and 3D Sketch tools Sketch entities 3D Feature tools Motion Study Sheet Metal Motion Study Sustainability Sustainability Xpress FlowXpress PhotoView 360 Pack and Go Intelligent Modeling techniques and more. Chapter 1 provides a basic overview of the concepts and terminology used throughout this book using SolidWorks 2013 software. If you are completely new to SolidWorks, you should read Chapter 1 in detail and complete Lesson 1, Lesson 2 and Lesson 3 in the SolidWorks Tutorials. If you are familiar with an earlier release of SolidWorks, you still might want to skim Chapter 1 to become acquainted with some of the commands, menus and features that you have not used; or you can simply jump to any section in any chapter. Each chapter (18 total) provides detailed PropertyManager information on key topics with individual stand alone short tutorials to reinforce and demonstrate the functionality and ease of the SolidWorks tool or feature. All models for the 240 plus tutorials are located on the enclosed book CD with their solution

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(initial and final). Learn by doing, not just by reading!

Formulate the skills to create, modify and edit sketches and solid features. Learn the techniques to reuse features, parts and assemblies through symmetry, patterns, copied components, design tables, configurations and more. The book is design to compliment the Online Tutorials and Online Help contained in SolidWorks 2013. The goal is to illustrate how multiple design situations and systematic steps combine to produce successful designs. The authors developed the tutorials by combining their own industry experience with the knowledge of engineers, department managers, professors, vendors and manufacturers. These professionals are directly involved with SolidWorks everyday. Their responsibilities go far beyond the creation of just a 3D model.

Parametric Modeling with SolidWorks 2012 contains a series of sixteen tutorial style lessons designed to introduce SolidWorks 2012, solid modeling and parametric modeling techniques and concepts. This book introduces SolidWorks 2012 on a step-by-step basis starting with constructing basic shapes all the way through to the creation of assembly drawings and motion analysis. This book takes a hands-on, exercise-intensive approach to all the important Parametric Modeling techniques and concepts. Each lesson introduces a new set of commands and concepts, building on previous lessons. The lessons guide the user from constructing basic shapes to building intelligent solid models, assemblies and creating multi-view drawings. This book also covers some of the more advanced features of

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SolidWorks 2012 including how to use the SolidWorks Design Library, basic motion analysis, collision detection and analysis with SimulationXpress. The exercises in this book cover the performance tasks that are included on the Certified SolidWorks Associate (CSWA) Examination. Reference guides located at the front of the book and in each chapter show where these performance tasks are covered.

A comprehensive e-book package for SolidWorks users SolidWorks is a powerful 3D solid modeler used in computer-aided design (CAD). Popular for its drag-and-drop, point-and-click, and cut-and-paste functions, SolidWorks is complex, and the detail found in these two comprehensive guides gives new users everything they need to become productive with the program. This e-book set features in-depth instruction and complete tutorials on parts (making part models and drawings of those parts) and assemblies (building assemblies and creating assembly drawings). Together they provide the knowledge you need to get up and running with SolidWorks 2011. SolidWorks 2011 is a complex 3D solid modeling program; the two in-depth guides in this e-book set cover making parts models and building assemblies, as well as creating drawings of both Set includes complete e-book versions of SolidWorks 2011 Parts Bible and SolidWorks 2011 Assemblies Bible Written by a veteran manufacturing engineer and consultant who does SolidWorks training, maintains a SolidWorks blog, and is known as the go-to guy for information about the software Covers both the "how" and "why" of SolidWorks, with extensive detail that will

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take you from novice to confident SolidWorks user
SolidWorks 2011 Parts & Assemblies Set provides a comprehensive education in using this popular 3D solid modeling program. SolidWorks 2011 Parts & Assemblies Set provides a comprehensive education in using this popular 3D solid modeling program.

ENGINEERING DESIGN: AN INTRODUCTION, Second Edition, features an innovative instructional approach emphasizing projects and exploration as learning tools. This engaging text provides an overview of the basic engineering principles that shape our modern world, covering key concepts within a flexible, two-part format. Part I describes the process of engineering and technology product design, while Part II helps students develop specific skill sets needed to understand and participate in the process. Opportunities to experiment and learn abound, with projects ranging from technical drawing to designing electrical systems--and more. With a strong emphasis on project-based learning, the text is an ideal resource for programs using the innovative Project Lead the Way curriculum to prepare students for success in engineering careers. The text's broad scope and sound coverage of essential concepts and techniques also make it a perfect addition to any engineering design course. Important Notice: Media content referenced within the product description or the product text may not be available in the ebook version.

SolidWorks 2012 TutorialSDC Publications

An Introduction to SolidWorks Flow Simulation 2012 takes you through the steps of creating the SolidWorks part for the simulation followed by the setup and

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calculation of the SolidWorks Flow Simulation project.

The results from calculations are visualized and compared with theoretical solutions and empirical data. Each chapter starts with the objectives and a description of the specific problems that are studied. End of chapter exercises are included for reinforcement and practice of what has been learned. The thirteen chapters of this book are directed towards first-time to intermediate level users of SolidWorks Flow Simulation. It is intended to be a supplement to undergraduate Fluid Mechanics and Heat Transfer related courses. This book can also be used to show students the capabilities of fluid flow and heat transfer simulations in freshman and sophomore courses such as Introduction to Engineering. Both internal and external flow problems are covered and compared with experimental results and analytical solutions. Covered topics include airfoil flow, boundary layers, flow meters, heat exchanger, natural and forced convection, pipe flow, rotating flow, tube bank flow and valve flow.

"In this Solidworks 2012 training video, you will learn how to utilize the tools and techniques in this software to create 3D CAD models and assemblies. This training course is designed for the beginner, you do not have to have any previous experience with SolidWorks in order to learn from this tutorial video. Starting with the basics, you will tour the interface, and learn how to customize it to work efficiently within SolidWorks. Next, you will learn how to sketch your designs, before you proceed right into creating models. Each topic builds on the last, and you start creating a model of a bracket. Next, you will

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learn the tools and techniques to design a plastic housing, and then a more complex topic, creating a sheet metal enclosure. You not only learn the tools, but how to apply them efficiently, in real modelling examples. Other topics covered include, sweeps, creating part drawings, editing techniques, and visualization techniques. You will conclude with how to assemble and output your creations. By the conclusion of this computer based training course for SolidWorks 2012, you will be fully capable of creating your own 3D CAD models and assemblies, using this popular software. The author has included working files with this training course, to allow you to follow alongside as he covers each of the topics."--Resource description page.

The exercises in ANSYS Workbench Tutorial Release 14 introduce you to effective engineering problem solving through the use of this powerful modeling, simulation and optimization software suite. Topics that are covered include solid modeling, stress analysis, conduction/convection heat transfer, thermal stress, vibration, elastic buckling and geometric/material nonlinearities. It is designed for practicing and student engineers alike and is suitable for use with an organized course of instruction or for self-study. The compact presentation includes just over 100 end-of-chapter problems covering all aspects of the tutorials.

The primary goal of Introduction to Finite Element Analysis Using SolidWorks Simulation 2012 is to introduce the aspects of Finite Element Analysis (FEA) that are important to engineers and designers.

Theoretical aspects of FEA are also introduced as they

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are needed to help better understand the operation. The primary emphasis of the text is placed on the practical concepts and procedures needed to use SolidWorks Simulation in performing Linear Static Stress Analysis and basic Model Analysis. This text covers SolidWorks Simulation and the lessons proceed in a pedagogical fashion to guide you from constructing basic truss elements to generating three-dimensional solid elements from solid models. This text takes a hands-on, exercise-intensive approach to all the important FEA techniques and concepts. This textbook contains a series of thirteen tutorial style lessons designed to introduce beginning FEA users to SolidWorks Simulation. The basic premise of this book is that the more designs you create using SolidWorks Simulation, the better you learn the software. With this in mind, each lesson introduces a new set of commands and concepts, building on previous lessons. Simple steps for creating AutoCAD drawings AutoCAD is the ubiquitous tool used by engineers, architects, designers, and urban planners to put their ideas on paper. It takes some AutoCAD know-how to go from a brilliant idea to a drawing that properly explains how brilliant your idea is. AutoCAD For Dummies helps you de-mystify the handy software and put the tools in AutoCAD to use. Written by an experienced AutoCAD engineer and mechanical design instructor, it assumes no previous computer-aided drafting experience as it walks you through the basics of starting projects and drawing straight lines all the way up through 3D modeling. Conquer the first steps in creating an AutoCAD project Tackle drawing basics including

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straight lines and curves Add advanced skills—including 3D drawing and modeling Set up a project and move into 3D It's true that AutoCAD is tough, but with the friendly instruction in this hands-on guide, you'll find everything you need to start creating marvelous models—without losing your cool.

Engineering Graphics with SOLIDWORKS 2019 is written to assist students, designers, engineers and professionals who are new to SOLIDWORKS. The book combines the fundamentals of engineering graphics and dimensioning practices with a step-by-step project based approach to learning SOLIDWORKS. The book is divided into four sections with 11 Chapters. Chapters 1 - 3: Explore the history of engineering graphics, manual sketching techniques, orthographic projection, Third vs. First angle projection, multi-view drawings, dimensioning practices (ASME Y14.5-2009 standard), line type, fit type, tolerance, fasteners in general, general thread notes and the history of CAD leading to the development of SOLIDWORKS. Chapters 4 - 9: Comprehend the SOLIDWORKS User Interface and CommandManager, Document and System properties, simple machine parts, simple and complex assemblies, proper design intent, design tables, configurations, multi-sheet, multi-view drawings, BOMs, and Revision tables using basic and advanced features. Follow the step-by-step instructions in over 80 activities to develop eight parts, four sub-assemblies, three drawings and six document templates. Chapter 10: Prepare for the Certified SOLIDWORKS Associate (CSWA) exam. Understand the curriculum and categories of the CSWA exam and the required model

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SolidWorks is an immense software package, and no one book can cover all topics for all users. The book provides a centralized reference location to address many of the tools, features and techniques of SolidWorks 2012. This book covers the following: System and Document properties FeatureManagers PropertyManagers ConfigurationManagers RenderManagers 2D and 3D Sketch tools Sketch entities 3D Feature tools Motion Study Sheet Metal Motion Study Sustainability Sustainability Xpress FlowXpress PhotoView 360 Pack and Go Intelligent Modeling techniques and more. Chapter 1 provides a basic overview of the concepts and terminology used throughout this book using SolidWorks® 2012 software. If you are completely new to SolidWorks, you should read Chapter 1 in detail and complete Lesson 1, Lesson 2 and Lesson 3 in the SolidWorks Tutorials. If you are familiar with an earlier release of SolidWorks, you still might want to skim Chapter 1 to become acquainted with some of the commands, menus and features that you have not used; or you can simply jump to any section in any chapter. Each chapter (18 total) provides detail PropertyManager information on key topics with individual stand alone short tutorials to reinforce and demonstrate the functionality and ease of the SolidWorks tool or feature. All models for the 240 plus tutorials are located on the enclosed book CD with their solution (initial and final). Learn by doing, not just by reading! Formulate the skills to create, modify and edit sketches and solid features. Learn the techniques to reuse features, parts and assemblies through symmetry,

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patterns, copied components, design tables, configurations and more. The book is design to compliment the Online Tutorials and Online Help contained in SolidWorks 2012. The goal is to illustrate how multiple design situations and systematic steps combine to produce successful designs. The authors developed the tutorials by combining their own industry experience with the knowledge of engineers, department managers, professors, vendors and manufacturers. These professionals are directly involved with SolidWorks everyday. Their responsibilities go far beyond the creation of just a 3D model.

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basic design principles and all digital design paradigms Understand computer-aided design, engineering, and manufacturing (CAD/CAE/CAM) tools available for various design-related tasks Understand how to put an integrated system together to conduct all-digital design (ADD) Provides a comprehensive and thorough coverage of essential elements for product modeling using the virtual engineering paradigm Covers CAD/CAE in product design, including solid modeling, mechanical assembly, parameterization, product data management, and data exchange in CAD Case studies and tutorial examples at the end of each chapter provide hands-on practice in implementing off-the-shelf computer design tools Provides two projects showing the use of Pro/ENGINEER and SolidWorks to implement concepts discussed in the book

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