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- Uses step-by-step, project based tutorials designed for beginning or intermediate users
- Will prepare you for the Certified SOLIDWORKS Associate Exam
- Includes a chapter introducing you to 3D printing

SOLIDWORKS 2020 Tutorial is written to assist students, designers, engineers and professionals who are new to SOLIDWORKS. The text provides a step-by-step, project based learning approach. It also contains information and examples on the five categories in the CSWA exam. The book is divided into four sections. Chapters 1 - 5 explore the SOLIDWORKS User Interface and CommandManager, Document and System properties, simple and complex parts and assemblies, proper design intent, design tables, configurations, multi-sheet, multi-view drawings, BOMs, and Revision tables using basic and advanced features. In chapter 6 you will create the final robot assembly. The physical components and corresponding Science, Technology, Engineering and Math (STEM) curriculum are available from Gears Educational Systems. All assemblies and components for the final robot assembly are provided. Chapters 7 - 10 prepare you for the Certified Associate - Mechanical Design (CSWA) exam. The

certification indicates a foundation in and apprentice knowledge of 3D CAD and engineering practices and principles. Chapter 11 covers the benefits of additive manufacturing (3D printing), how it differs from subtractive manufacturing, and its features. You will also learn the terms and technology used in low cost 3D printers. 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, apply proper design intent, 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.

Whether it's your first venture into 3D technical drawing software or you're switching to SolidWorks from something else, you're probably excited about what this CAD program has to offer. Chances

are, you figure it's going to take awhile to get the hang of it before you can begin cranking out those perfectly precise 3D designs. SolidWorks For Dummies, 2nd Edition, can help you dramatically shorten that get-acquainted period! SolidWorks For Dummies, 2nd Edition will help you get up and running quickly on the leading 3D technical drawing software. You'll see how to set up SolidWorks to create the type of drawings your industry requires and how to take full advantage of its legendary 3D features. You'll discover how to: Work with virtual prototypes Understand the user interface Use templates and sketch, assemble, and create drawings Automate the drawing process Review drawings and collaborate with other team members Define and edit sketches Create dimensions and annotations Print or plot your drawings Leverage existing designs Sample files on the bonus CD-ROM show you how to apply the latest version of SolidWorks and accomplish specific tasks. Even if you're brand-new to CAD software, SolidWorks For Dummies, 2nd Edition will have you feeling like a pro in no time. You'll find you've entered a whole new dimension. Note: CD-ROM/DVD and other supplementary materials are not included as part of eBook file.

Engineering Design with SolidWorks 2015 and video instruction is written to assist students, designers, engineers and professionals. The book provides a solid foundation in SolidWorks by utilizing projects with step-by-step instructions for the beginner to intermediate SolidWorks user. Explore the user interface, CommandManager, menus, toolbars and modeling techniques to create parts, assemblies and drawings in an engineering environment. Follow the step-by-step instructions and develop multiple parts and assemblies that combine

machined, plastic and sheet metal 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, Bills of Materials, Custom Properties and Configurations. Address various SolidWorks analysis tools and Intelligent Modeling techniques along with Additive Manufacturing (3D printing). Learn by doing not just by reading. Desired outcomes and usage competencies are listed for each project. Know your objective up front. Follow the steps in Projects 1 - 9 to achieve the design goals. Review Project 10 on Additive Manufacturing (3D printing) and its benefits and features. Understand the terms and technology used in low cost 3D printers. Work between multiple documents, features, commands and custom properties that represent how engineers and designers utilize SolidWorks in industry. Review individual features, commands and tools with the Video Instruction. The projects contain exercises. The exercises analyze and examine usage competencies. Collaborate with leading industry suppliers such as SMC Corporation of America, Boston Gear and 80/20 Inc. Collaborative information translates into numerous formats such as paper drawings, electronic files, rendered images and animations. On-line intelligent catalogs guide designers to the product that meets both their geometric requirements and performance functionality. The author developed the industry scenarios by combining his own industry experience with the knowledge of engineers, department managers, vendors and manufacturers. These professionals are directly involved with SolidWorks every day. Their responsibilities go far beyond the creation of just a 3D model. The book is designed to

compliment the SolidWorks Tutorials contained in SolidWorks 2015. View the provided videos in the book to enhance the user experience. SolidWorks Interface 2D Sketching, Sketch Planes and Sketch tools 3D Features and Design Intent Creating an Assembly Fundamentals in Drawings Part 1 & Part 2

This book is intended to help new users to learn the basic concepts of SolidWorks and good solid modeling techniques in an easy to follow guide. It will be a great starting point for those new to SolidWorks or as a teaching aid in classroom training to become familiar with the software's interface, basic commands and strategies as the user completes a series of models while learning different ways to accomplish a particular task. At the end of this book, you will have a fairly good understanding of the SolidWorks interface and the most commonly used commands for part modeling, assembly and detailing after completing a series of components and their 2D drawings complete with Bill of Materials. The 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. The author strived hard to include the commands required in the Certified SolidWorks Associate test as listed on the SolidWorks website, as well as several more. SolidWorks is an easy to use CAD software that includes many time saving tools that will enable new and experienced users to complete design tasks faster than before. Most commands covered in this book have advanced options, which may not be covered in this book. This is meant to be a starting point to help new users to learn the basic and most frequently used commands.

SOLIDWORKS 2018: A Tutorial Approach introduces readers to SOLIDWORKS 2018 software, one of the world's leading parametric solid modeling packages. In this book, the author has adopted a tutorial-based approach to explain the fundamental concepts of SOLIDWORKS. This book has been written with the tutorial point of view and the learn-by-doing theme to help the users easily understand the concepts covered in it. The book consists of 12 chapters that are structured in a pedagogical sequence that makes the book very effective in learning the features and capabilities of the software. The book covers a wide range of topics such as Sketching, Part Modeling, Assembly Modeling, Drafting in SOLIDWORKS 2018. In addition, this book covers the basics of Mold Design, FEA, and SOLIDWORKS Simulation. Salient Features: Consists of 12 chapters that are organized in a pedagogical sequence. Tutorial approach to explain various concepts of SOLIDWORKS 2018. First page of every chapter summarizes the topics that are covered in it. Step-by-step instructions that guide the users through the learning process. Several real-world mechanical engineering designs as tutorials and projects. Additional information throughout the book in the form of notes and tips. Self-Evaluation Tests and Review Questions at the end of the chapters for the users to assess their knowledge. Technical support by contacting 'techsupport@cadcim.com'. Additional learning resources at <http://allaboutcadcam.blogspot.com>. Table of Contents Chapter 1: Introduction to SOLIDWORKS 2018 Chapter 2: Drawing Sketches for Solid Models Chapter 3: Editing and Modifying Sketches Chapter 4: Adding Relations and Dimensions to Sketches Chapter 5: Advanced Dimensioning Techniques and

Base Feature Options Chapter 6: Creating Reference Geometries Chapter 7: Advanced Modeling Tools-I Chapter 8: Advanced Modeling Tools-II Chapter 9: Assembly Modeling Chapter 10: Working with Drawing Views Chapter 11: Introduction to FEA and SOLIDWORKS Simulation Chapter 12: Introduction to Mold Design Student Project Index

Beginner's Guide to SOLIDWORKS 2022 - Level II starts where Beginner's Guide - Level I ends, following the same easy to read style and companion video instruction, 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 many

of the commands required in the Certified SOLIDWORKS Professional Advanced and Expert exams as listed on the SOLIDWORKS website. Includes Video Instruction Each copy of this book includes access to video instruction. In these videos the author provides a clear presentation of tutorials found in the book. The videos reinforce the steps described in the book by allowing you to watch the exact steps the author uses to complete the exercises while he provides additional details along the way. Captioned versions of these videos are also available for customers who want or need video captions.

The SOLIDWORKS 2021 Reference Guide is a comprehensive reference book written to assist the beginner to intermediate user of SOLIDWORKS 2021. 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 2021. 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 SOLIDWORKS Simulation PhotoView 360 Pack and Go 3D PDFs Intelligent Modeling techniques 3D printing terminology and more Chapter 1 provides a basic overview of the concepts and terminology used throughout this book using SOLIDWORKS 2021 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 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. The book provides access to over 260 models, their solutions and additional support materials. 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 designed to complement the Online Tutorials and Online Help contained in SOLIDWORKS 2021. The goal is to illustrate how multiple design situations and systematic steps combine to produce successful designs. The author developed the tutorials by combining his own industry experience with the knowledge of engineers, department managers, professors, vendors and manufacturers. He is directly involved with SOLIDWORKS every day and his responsibilities go far beyond the creation of just a 3D model. Beginner's Guide to SOLIDWORKS 2019 – Level II starts where Beginner's Guide – Level I ends, following the same easy to read style and companion video instruction, 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

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Engineering Design with SOLIDWORKS 2016 and video instruction is written to assist students, designers, engineers and professionals. The book provides a solid foundation in SOLIDWORKS by utilizing projects with step-by-step instructions for the beginner to intermediate SOLIDWORKS user. Explore the user interface, CommandManager, menus, toolbars and modeling techniques to create parts, assemblies and drawings in an engineering environment. Follow the step-by-step instructions and develop multiple parts and assemblies that combine machined, plastic and sheet metal components. Formulate the skills to create, modify and edit sketches and solid features. Learn the techniques to reuse features, parts and assemblies through sym-

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formation and exercises that will aid you in passing the following exams: Certified SOLIDWORKS Associate (CSWA), Certified SOLIDWORKS Associate Sustainable Design (CSWA-SD), Certified SOLIDWORKS Associate Simulation (CSWSA-S) and the Certified SOLIDWORKS Associate Additive Manufacturing (CSWA-AM) exam. There are three goals for this book. The primary goal of this book is not only to help you pass the CSWA, CSWA-SD, CSWSA-S and CSWA-AM exams, but also to ensure that you understand and comprehend the concepts and implementation details of the four certification processes. The second goal is to provide the most comprehensive coverage of CSWA, CSWA-SD, CSWSA-S and CSWA-AM 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, CSWA-SD, CSWSA-S and CSWA-AM exams. CSWA Exam The CSWA certification indicates a foundation in and apprentice knowledge of 3D CAD design and engineering practices and principles. The intended audience for this section of the book is anyone trying to take and pass the CSWA exam with a minimum of 6 - 9 months of SOLIDWORKS experience and basic knowledge of engineering fundamentals and practices. SOLIDWORKS recommends that you review their SOLIDWORKS Tutorials on Parts, Assemblies and Drawings as a prerequisite and have at least 45 hours of classroom time learning SOLIDWORKS or using SOLIDWORKS with basic engineering design principles and practices. CSWA-SD Exam The Certified SOLIDWORKS Associate Sustainable Design (CSWA-SD) certification indicates a foundation in and apprentice knowledge of demonstrating an understanding in the principles of environmen-

tal assessment and sustainable design. This section of the book is intended for anyone interested in Sustainable design as well as life cycle assessment and trying to take and pass the CSWA-SD exam. Although no hands-on usage of SOLIDWORKS is required for the CSWA-SD certification exam, it is a good idea to review the SOLIDWORKS SustainabilityXpress and SOLIDWORKS Sustainability tutorials inside of SOLIDWORKS to better understand the actual workflow. The CSWA-SD is based off the SOLIDWORKS Sustainable Design Guide that incorporates concepts including sustainability, environmental assessment and life cycle impact assessment.

CSWSA-S Exam The Certified SOLIDWORKS Associate Simulation (CSWSA-S) certification indicates a foundation in and apprentice knowledge of demonstrating an understanding in the principles of stress analysis and the Finite Element Method (FEM). The CSWSA-S section of the book is for anyone trying to take and pass the CSWSA-S with a minimum of 6 - 9 months of SOLIDWORKS experience and knowledge in the following areas: Engineering Mechanics - Statics, Strength of Materials, Finite Element Method/Finite Element Analysis Theory, Applied concepts in SOLIDWORKS Simulation: namely Static Analysis, Solid, Shell, and Beam elements, Connections and Applying loads and boundary conditions and interpreting results. The purpose of this section in the book is NOT to educate a new or intermediate user on SOLIDWORKS Simulation, but to cover and to inform you on the types of questions, layout and what to expect when taking the CSWSA-S exam.

CSWA-AM Exam The Certified SOLIDWORKS Associate Additive Manufacturing (CSWA-AM) certification indicates a foundation in and apprentice knowledge of today's 3D printing technology and

market. The intended audience for this section of the book is anyone trying to take and pass the CSWA-AM exam and an interest in Additive Manufacturing. The CSWA-AM exam is meant to be taken after the completion of the 10-part learning path located on MySOLIDWORKS.com. The CSWA-AM exam fundamentally covers two 3D printing technologies: Fused Filament Fabrication (FFF) and STereoLithography (SLA). There are a few questions on Selective Laser Sintering (SLS) technology and available software-based printing aids.

This book is intended to help new users learn the basic concepts of SolidWorks and good solid modeling techniques in an easy to follow guide that includes video instruction. It is a great starting point for those new to SolidWorks or as a teaching aid in classroom training to become familiar with the software's interface, basic commands and strategies as users complete a series of models while learning different ways to accomplish a particular task. At the end of this book, you will have a fairly good understanding of the SolidWorks interface and the most commonly used commands for part modeling, assembly and detailing after completing a series of components and their 2D drawings complete with Bill of Materials. The book focuses 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. The author strived hard to include the commands required in the Certified SolidWorks Associate test as listed on the SolidWorks website, as well as several more. SolidWorks is an easy to use CAD software that includes many time saving tools that will enable new and experienced users to complete design tasks faster than before. Most commands cov-

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Beginner's Guide to SOLIDWORKS 2021 - Level II starts where Beginner's Guide - Level I ends, following the same easy to read style and companion video instruction, 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 many of the commands required in the Certified SOLIDWORKS Professional Advanced and Expert exams as listed on the SOLIDWORKS website. Includes

Video Instruction Each copy of this book includes access to video instruction. In these videos the author provides a clear presentation of tutorials found in the book. The videos reinforce the steps described in the book by allowing you to watch the exact steps the author uses to complete the exercises while he provides additional details along the way. Captioned versions of these videos are also available for customers who want or need video captions.

SolidWorks 2014 Tutorial with video instruction is targeted 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 video instruction, SolidWorks model files, and preparation for the Certified Associate - Mechanical Design (CSWA) exam. The book is divided into two sections. Chapters 1 - 5 explore 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, Revision tables using basic and advanced features. Chapters 6 - 9 prepare you for the Certified Associate - Mechanical Design (CSWA) exam. The 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,

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Explore a practical and example-driven approach to understanding SOLIDWORKS 2020 and achieving CSWA and CSWP certification

Key Features

- Gain comprehensive insights into the core aspects of mechanical part modeling
- Get up to speed with generating assembly designs with both standard and advanced mates
- Focus on design practices for both 2D as well as 3D modeling and prepare to achieve CWSP and CWSA certification

Book Description SOLIDWORKS is the leading choice for 3D engineering and product design applications across industries such as aviation, automobiles, and consumer product design. This book takes a practical approach to getting you up and running with SOLIDWORKS 2020. You'll start with the basics, exploring the software interface and working with drawing files. The book then guides you through topics such as sketching, building complex 3D models, generating dynamic and static assemblies, and generating 2D engineering drawings to equip you for mechanical design projects. You'll also do practical exercises to get hands-on with creating sketches, 3D part models, assemblies, and drawings. To reinforce your understanding of SOLIDWORKS, the book is supplemented by downloadable files that will help you follow up with the concepts and exercises found in the book. By the end of this

book, you'll have gained the skills you need to create professional 3D mechanical models using SOLIDWORKS, and you'll be able to prepare effectively for the Certified SOLIDWORKS Associate (CSWA) and Certified SOLIDWORKS Professional (CSWP) exams. What you will learn

- Understand the fundamentals of SOLIDWORKS and parametric modeling
- Create professional 2D sketches as bases for 3D models using simple and advanced modeling techniques
- Use SOLIDWORKS drawing tools to generate standard engineering drawings
- Evaluate mass properties and materials for designing parts and assemblies
- Understand the objectives and the formats of the CSWA and CSWP exams
- Discover expert tips and tricks to generate different part and assembly configurations for your mechanical designs

Who this book is for This book is for aspiring engineers, designers, drafting technicians, or anyone looking to get started with the latest version of SOLIDWORKS. Anyone interested in becoming a Certified SOLIDWORKS Associate (CSWA) or Certified SOLIDWORKS Professional (CSWP) will also find this book useful. This book is intended to help new users learn the basic concepts of SOLIDWORKS and good solid modeling techniques in an easy to follow guide that includes video instruction. It is a great starting point for those new to SOLIDWORKS or as a teaching aid in classroom training to become familiar with the software's interface, basic commands and strategies as users complete a series of models while learning different ways to accomplish a particular task. At the end of this book, you will have a fairly good understanding of the SOLIDWORKS interface and the most commonly used commands for part modeling, assembly and detailing after completing a series of components and their 2D drawings complete with Bill of

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The Commands Guide Tutorial for SolidWorks 2011 is a comprehensive reference book written to assist the beginner to intermediate user of SolidWorks 2011. 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 2011. 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 2011 software. If you are completely new to SolidWorks, you should read Chapter 1 in detail and complete Tutorial 1, Tutorial 2, and Tutorial 3 in the SolidWorks Tutorials. If you are familiar with an earlier release of SolidWorks, you might still want to skim Chapter 1 to get acquainted with some of the new commands, menus, and features that you haven't 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 provided on the enclosed book CD with their solution (initial and final). Learn by doing, not just reading! Formulate the skills to create, modify and edit sketches and solid features. You will also learn the techniques to reuse features, parts and assemblies through symmetry, patterns, copied components, design tables, configurations and more. The book is designed to compliment the Online Tutorials and Online Help contained in SolidWorks 2011. The goal is to illustrate how multiple design situations and systematic steps combine to produce successful designs.

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- Designed to teach new users the basic concepts of SOLIDWORKS and good solid modeling techniques
- Uses a task oriented approach to learning SOLIDWORKS
- Focuses on the processes to complete the modeling of a part, instead of individual commands
- Includes access to extensive video instruction
- Covers commands found on the CSWA exam and includes a practice test
- This edition features expanded content covering the CSWA exam

This book is intended to help new users learn the basic concepts of SOLIDWORKS and good solid modeling techniques in an easy to follow guide that includes video instruction. It is a great starting point for those new to SOLIDWORKS or as a teaching aid in classroom training to become familiar with the software's interface, basic commands and strategies as users complete a series of models while learning different ways to accomplish a particular task. At the end of this book, you will have a fairly good understanding of the SOLIDWORKS interface and the most commonly used commands for part modeling, assembly and detailing after completing a series of components and their 2D drawings complete with Bill of Materials. The book focuses on the processes to complete the modeling of a part, instead of focusing on individual software com-

mands or operations, which are generally simple enough to learn. Throughout this book the author introduces you to new commands that are required to pass the Certified SOLIDWORKS Associate exam, as listed on the SOLIDWORKS website. A dedicated chapter provides you with details about the exam, as well as a practice test to help you prepare for the actual exam. SOLIDWORKS is an easy to use CAD software that includes many time saving tools that will enable new and experienced users to complete design tasks faster than before. Most commands covered in this book have advanced options, which may not be covered in this book. This is meant to be a starting point to help new users to learn the basic and most frequently used commands. Includes Video Instruction Each copy of this book includes access to video instruction. In these videos the author provides a clear presentation of tutorials found in the book. The videos reinforce the steps described in the book by allowing you to watch the exact steps the author uses to complete the exercises while he provides additional details along the way. Captioned versions of these videos are also available for customers who want or need video captions. The SOLIDWORKS 2018 Reference Guide is a comprehensive reference book written to assist the beginner to intermediate user of SOLIDWORKS 2018. 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 2018. This book covers the following: System and Document properties FeatureManagersPropertyManagersConfigurationManagersRenderManagers 2D and 3D Sketch tools S-

ketch entities 3D Feature tools Motion Study Sheet Metal Motion Study SOLIDWORKS Simulation PhotoView 360 Pack and Go 3D PDFs Intelligent Modeling techniques 3D printing terminology and more Chapter 1 provides a basic overview of the concepts and terminology used throughout this book using SOLIDWORKS 2018 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 provides detailed Property Manager information on key topics with individual stand-alone short tutorials to reinforce and demonstrate the functionality and ease of the SOLIDWORKS tool or feature. The book provides access to over 250 models, their solutions and additional support materials. 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 designed to complement the Online Tutorials and Online Help contained in SOLIDWORKS 2018. The goal is to illustrate how multiple design situations and systematic steps combine to produce successful designs. The author developed the tutorials by combining his own industry experience with the knowledge of engineers, department managers, professors, vendors and manufacturers. He is directly involved with SOLIDWORKS every day and his responsibilities go far beyond the creation of just

a 3D model.

SOLIDWORKS 2019 Tutorial is written to assist students, designers, engineers and professionals who are new to SOLIDWORKS. The text provides a step-by-step, project based learning approach. It also contains information and examples on the five categories in the CSWA exam. The book is divided into four sections. Chapters 1 - 5 explore the SOLIDWORKS User Interface and CommandManager, Document and System properties, simple and complex parts and assemblies, proper design intent, design tables, configurations, multi-sheet, multi-view drawings, BOMs, and Revision tables using basic and advanced features. In chapter 6 you will create the final robot assembly. The physical components and corresponding Science, Technology, Engineering and Math (STEM) curriculum are available from Gears Educational Systems. All assemblies and components for the final robot assembly are provided. Chapters 7 - 10 prepare you for the Certified Associate - Mechanical Design (CSWA) exam. The certification indicates a foundation in and apprentice knowledge of 3D CAD and engineering practices and principles. Chapter 11 covers the benefits of additive manufacturing (3D printing), how it differs from subtractive manufacturing, and its features. You will also learn the terms and technology used in low cost 3D printers. 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, apply proper design intent, 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 Complete Guide to Mold Making with SOLIDWORKS 2021 is a quick paced book written to provide experienced SOLIDWORKS users with in-depth knowledge of the mold tools provided by SOLIDWORKS. Throughout this book you will learn the procedures necessary for using these tools to create and analyze effective mold designs. Utilizing step-by-step instructions, each chapter of this book will guide you through different tasks, from designing or repairing a mold, to developing complex parting lines; from making a core in the part mode to advancing through more complex tasks in the assembly mode. Throughout this book you will be introduced to using surfacing tools to repair models and prepare them for the mold making process. Towards the end of this book, you will learn how to work with SOLIDWORKS Plastics and Flow Simulation to simulate the way melted plastics flow during the injection molding process. You will also learn to analyze the thick-thin wall regions to predict defects on plastic parts and molds. Learning how to analyze plastic parts for errors and correct them early in the design stage is a valuable skill, which can save a significant amount of time throughout the span of the entire design process. Every project in this book is based on real world products. Each of these projects have been broken down and developed into simple, comprehensible steps. Furthermore, every mold design is ex-

plained very clearly in short chapters, ranging from 15 to 25 pages. Each step comes with the exact screen shot to help you understand the main concept of the design. Learn the mold designs at your own pace, as you progress from simple core and cavity creation to more complex mold design challenges. This book will also teach you to use various surfacing tools such as: • Ruled Surface • Planar Surface • Knit Surface • Filled Surface • Extend Surface • Trim Surface • Lofted Surface Who This Book Is For This book is for users already familiar with SOLIDWORKS who want to expand their knowledge of mold design. To get the most out of this mold design book, it is strongly recommended that you have completed all the lessons in the SOLIDWORKS Advanced Techniques book or have comparable knowledge. More CAD literate individuals, who want to expand their knowledge of the different features that SOLIDWORKS 2021 has to offer, will also find this book to be a great resource.

Engineering Design with SOLIDWORKS 2018 and video instruction is written to assist students, designers, engineers and professionals. The book provides a solid foundation in SOLIDWORKS by utilizing projects with step-by-step instructions for the beginner to intermediate SOLIDWORKS user featuring machined, plastic and sheet metal components. Desired outcomes and usage competencies are listed for each project. The book is divided into five sections with 11 projects. Project 1 - Project 6: Explore the SOLIDWORKS User Interface and CommandManager, Document and System properties, simple and complex parts and assemblies, proper design intent, design tables, configurations, multi-sheet, multi-view drawings, BOMs, and Revision tables using basic and advanced features.

Additional techniques include the edit and reuse of features, parts, and assemblies through symmetry, patterns, configurations, SOLIDWORKS 3D ContentCentral and the SOLIDWORKS Toolbox. Project 7: Understand Top-Down assembly modeling and Sheet Metal parts. Develop components In-Context with InPlace Mates, along with the ability to import parts using the Top-Down assembly method. Convert a solid part into a Sheet Metal part and insert and apply various Sheet Metal features. Project 8 - Project 9: Recognize SOLIDWORKS Simulation and Intelligent Modeling techniques. Understand a general overview of SOLIDWORKS Simulation and the type of questions that are on the SOLIDWORKS Simulation Associate - Finite Element Analysis (CSWSA-FEA) exam. Apply design intent and intelligent modeling techniques in a sketch, feature, part, plane, assembly and drawing. Project 10: Comprehend the differences between additive and subtractive manufacturing. Understand 3D printer terminology along with a working knowledge of preparing, saving, and printing CAD models on a low cost printer. Project 11: Review the Certified Associate - Mechanical Design (CSWA) program. Understand the curriculum and categories of the CSWA exam and the required model knowledge needed to successfully take the exam. The author developed the industry scenarios by combining his own industry experience with the knowledge of engineers, department managers, vendors and manufacturers. These professionals are directly involved with SOLIDWORKS every day. Their responsibilities go far beyond the 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 (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.

The SolidWorks 2015 Reference Guide is a comprehensive reference book written to assist the beginner to intermediate user of SolidWorks 2015. 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 2015. This book covers the following: System and Document properties-FeatureManagersPropertyManagers-ConfigurationManagersRenderManagers-2D and 3D Sketch toolsSketch entities3D Feature toolsMotion StudySheet MetalMotion StudySolidWorks Simulation-PhotoView 360Pack and Go3D PDFsIntelligent Modeling techniques3D printing terminology and more Chapter 1 provides a basic overview of the concepts and terminology used throughout this book using SolidWorks 2015 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 provides detailed PropertyManager information on key top-

ics with individual stand-alone short tutorials to reinforce and demonstrate the functionality and ease of the SolidWorks tool or feature. The book provides access to over 240 models, their solutions and additional support materials. 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 designed to compliment the Online Tutorials and Online Help contained in SolidWorks 2015. The goal is to illustrate how multiple design situations and systematic steps combine to produce successful designs. The author developed the tutorials by combining his own industry experience with the knowledge of engineers, department managers, professors, vendors and manufacturers. He is directly involved with SolidWorks every day and his responsibilities go far beyond the creation of just a 3D model.

SOLIDWORKS Sheet Metal Design 2021 textbook has been designed for instructor-led courses as well as self-paced learning. It is intended to help engineers and designers interested in learning SOLIDWORKS for creating real-world sheet metal components. This textbook is a great help for SOLIDWORKS users new to sheet metal design. It consists of total 132 pages covering the sheet metal design environment of SOLIDWORKS. It teaches users to use SOLIDWORKS mechanical design software for creating parametric 3D sheet metal components. This textbook not only focuses on the usage of the tools and commands of SOLIDWORKS for creating sheet metal components but also on the concept of design. It contains Tutorials followed by theory that provide users with step-by-step in-

structions for creating sheet metal components. Moreover, it ends with Hands-on Test Drives which allow users to experience the user friendly and technical capabilities of SOLIDWORKS.

This senior undergraduate level textbook is written for Advanced Manufacturing, Additive Manufacturing, as well as CAD/CAM courses. Its goal is to assist students in colleges and universities, designers, engineers, and professionals interested in using SolidWorks as the design and 3D printing tool for emerging manufacturing technology for practical applications. This textbook will bring a new dimension to SolidWorks by introducing readers to the role of SolidWorks in the relatively new manufacturing paradigm shift, known as 3D-Printing which is based on Additive Manufacturing (AM) technology. This new textbook: Features modeling of complex parts and surfaces Provides a step-by-step tutorial type approach with pictures showing how to model using SolidWorks Offers a user-Friendly approach for the design of parts, assemblies, and drawings, motion-analysis, and FEA topics Includes clarification of connections between SolidWorks and 3D-Printing based on Additive Manufacturing Discusses a clear presentation of Additive Manufacturing for Designers using SolidWorks CAD software "Introduction to SolidWorks: A Comprehensive Guide with Applications in 3D Printing" is written using a hands-on approach which includes a significant number of pictorial descriptions of the steps that a student should follow to model parts, assemble parts, and produce drawings.

AutoCAD 2023: A Power Guide for Beginners and Intermediate Users textbook is designed for instructor-led courses as well as for self-paced learning. It is intended to help engineers, designers, and

CAD operators interested in learning AutoCAD for creating 2D engineering drawings as well as 3D Models. This textbook is a great help for new AutoCAD users and a great teaching aid for classroom training. The textbook consists of 13 chapters, and a total of 548 pages covering major workspaces of AutoCAD such as Drafting & Annotation and 3D Modeling, teaching you to use AutoCAD software for creating, editing, plotting, and managing real world 2D engineering drawings and 3D Models. This textbook not only focuses on the usage of the tools/commands of AutoCAD but also on the concept of design. Every chapter of this textbook contains tutorials that provide users with step-by-step instructions on how to create mechanical designs and drawings with ease. Moreover, every chapter ends with hands-on test drives which allow users to experience themselves the user friendly and powerful capabilities of AutoCAD. Table of Contents
 Chapter 1. Introduction to AutoCAD
 Chapter 2. Creating Drawings - I
 Chapter 3. Working with Drawing Aids and Layers
 Chapter 4. Creating Drawings - II
 Chapter 5. Modifying and Editing Drawings - I
 Chapter 6. Working with Dimensions and Dimensions Style
 Chapter 7. Editing Dimensions and Adding Text
 Chapter 8. Modifying and Editing Drawings - II
 Chapter 9. Hatching and Gradients
 Chapter 10. Working with Blocks and Xrefs
 Chapter 11. Working with Layouts
 Chapter 12. Printing and Plotting
 Chapter 13. Introducing 3D Basics and Creating 3D Models
 Main Features of the Textbook
 Comprehensive coverage of tools
 Step-by-step real-world tutorials with every chapter
 Hands-on test drives to enhance the skills at the end of every chapter
 Additional notes and tips
 Customized content for faculty (PowerPoint Presentations)
 Free learning resources

for faculty and students
 Additional student and faculty projects
 Technical support for the book by contacting info@cadartifex.com

The Commands Guide Tutorial for SolidWorks 2012 is a comprehensive reference book written to assist the beginner to intermediate user of SolidWorks 2012. 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
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 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, 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.

The SOLIDWORKS 2017 Reference Guide is a comprehensive reference book written to assist the beginner to intermediate user of SOLIDWORKS 2017. 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 2017. 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 SOLIDWORKS Simulation PhotoView 360 Pack and Go 3D PDFs Intelligent Modeling techniques 3D printing terminology and more Chapter 1 provides a basic overview of the concepts and terminology used throughout this book using SOLIDWORKS 2017 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 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. The book provides access to over 250 models, their solutions and additional support materials. 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 designed to compliment the Online Tutorials and Online Help contained in SolidWorks 2017. The goal is to illustrate how multiple design situations and systematic steps combine to produce successful designs. The author developed the tutorials by combining his own industry experience with the knowledge of engineers, department managers, professors, vendors and manufacturers. He is directly involved with SOLIDWORKS every day and his responsibilities go far beyond the creation of just a 3D model.

This book is intended to help new users learn the basic concepts of SOLIDWORKS and good solid modeling techniques in an easy to follow guide that includes video instruction. It is a great starting point for those new to SOLIDWORKS or as a teaching aid in classroom training to become familiar with the software's interface, basic commands and strategies as users complete a series of models while learning different ways to accomplish a particular task. At the end of this book,

you will have a fairly good understanding of the SOLIDWORKS interface and the most commonly used commands for part modeling, assembly and detailing after completing a series of components and their 2D drawings complete with Bill of Materials. The book focuses 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. The author strived hard to include the commands required in the Certified SOLIDWORKS Associate and Certified SOLIDWORKS Professional Exams as listed on the SOLIDWORKS website. SOLIDWORKS is an easy to use CAD software that includes many time saving tools that will enable new and experienced users to complete design tasks faster than before. Most commands covered in this book have advanced options, which may not be covered in this book. This is meant to be a starting point to help new users to learn the basic and most frequently used commands.

- A comprehensive reference book for SOLIDWORKS 2020
- Contains 260 plus standalone tutorials
- Starts with a basic overview of SOLIDWORKS 2020 and its new features
- Tutorials are written for each topic with new and intermediate users in mind
- Includes access to each tutorial's initial and final state
- Contains a chapter introducing you to 3D printing

The SOLIDWORKS 2020 Reference Guide is a comprehensive reference book written to assist the beginner to intermediate user of SOLIDWORKS 2020. 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 2020. 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
- SOLIDWORKS Simulation
- PhotoView 360
- Pack and Go
- 3D PDFs
- Intelligent Modeling techniques
- 3D printing terminology and more

Chapter 1 provides a basic overview of the concepts and terminology used throughout this book using SOLIDWORKS 2020 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 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. The book provides access to over 260 models, their solutions and additional support materials. 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 designed to complement the Online Tutorials and Online Help contained in SOLIDWORKS 2020. The goal is to illustrate how multiple design situations and systematic steps combine to produce successful designs. The author developed the tutorials by combining his own industry experience with

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Beginner's Guide to SOLIDWORKS 2020 - Level II starts where Beginner's Guide - Level I ends, following the same easy to read style and companion videoinstruction, 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 many of the commands required in the Certified SOLIDWORKS Professional Advanced and Expert exams as listed on

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SOLIDWORKS 2018 Tutorial with video instruction is written to assist students, designers, engineers and professionals who are new to SOLIDWORKS. The text provides a step-by-step, project based learning approach. It also contains information and examples on the five categories, to take and understand the Certified Associate - Mechanical Design (CSWA) exam. The book is divided into four sections. Chapters 1 - 5 explore the SOLIDWORKS User Interface and CommandManager, Document and System properties, simple and complex parts and assemblies, proper design intent, design tables, configurations, multi-sheet, multi-view drawings, BOMs, and Revision tables using basic and advanced features. In chapter 6 you will create the final robot assembly. The physical components and corresponding Science, Technology, Engineering and Math (STEM) curriculum are available from Gears Educational Systems. All assemblies and components for the final robot assembly are provided. Chapters 7 - 10 prepare you for the Certified Associate - Mechanical Design (CSWA) exam. The certification indicates a foundation in and apprentice knowledge of 3D CAD and engineering practices and principles. Chapter 11 covers the benefits of additive manufacturing (3D printing), how it differs from subtractive manufacturing, and its features. You will also learn the terms and technology used in low cost 3D printers. 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, apply proper design

intent, 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.

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meant to be a starting point to help new users to learn the basic and most frequently used commands. Includes Video Instruction Each copy of this book includes access to video instruction. In these videos the author provides a visual presentation of tutorials found in the book. The videos reinforce the steps described in the book by allowing you to watch the exact steps the author uses to complete the exercises.

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 (CS-

DA) certification indicates a foundation in and apprentice knowledge of demonstrating an 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.