

Guide Utilisation Solidworks 2012

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 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.

Introduction to Solid Modeling Using SolidWorks® 2012 presents "keystroke-level" tutorials, providing users new to the SolidWorks® program with all the detail they need to become confident using the software. Topics are illustrated and infused with examples from the real world such as flanges, brackets, helical springs, and more. Additionally, this easy-to-use guide has modular chapters, allowing for flexible organization of a course or self-study. Accessible and updated for the newest version of software, Introduction to Solid Modeling Using SolidWorks® 2012 by Howard and Musto relates solid modeling exercises to engineering concepts in a way that introduces the engineering design process while simultaneously building student proficiency with a state-of-the-art software tool. The Student Design Kit is no longer available as a download. Instructors can receive free 1 year copies of SolidWorks for their students by going to www.solidworks.com/studentaccess. Schools must be on subscription to receive free student software.

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 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.

Commands Guide Tutorial for SolidWorks 2012SDC Publications
Engineering Design with SOLIDWORKS 2018 and Video Instruction
SolidWorks Administration Bible

Beginner's Guide to SOLIDWORKS 2022 - Level II

Beginner's Guide to Solidworks 2012 - Level II

Engineering & Computer Graphics Workbook Using SOLIDWORKS 2017

Engineering Analysis with SolidWorks Simulation 2012 goes beyond

the standard software manual. Its unique approach concurrently introduces you to the SolidWorks Simulation 2012 software and the fundamentals of Finite Element Analysis (FEA) through hands-on exercises. A number of projects are presented using commonly used parts to illustrate the analysis features of SolidWorks Simulation. Each chapter is designed to build on the skills, experiences and understanding gained from the previous chapters.

Topics covered: Linear static analysis of parts and assemblies

Contact stress analysis Frequency (modal) analysis Buckling analysis Thermal analysis Drop test analysis Nonlinear analysis

Dynamic analysis Random vibration analysis h and p adaptive

solution methods Modeling techniques Implementation of FEA in

the design process Management of FEA projects FEA terminology

Project Based SOLIDWORKS is specifically designed to complement

an engineering graphics course. It covers how to apply

engineering graphics concepts, such as part prints, section

views, assembly drawings, tolerancing and fasteners. It also

extends these topics into the world of design. Project Based

SOLIDWORKS takes a specific part or assembly and teaches you how

to model each part and its configurations, create part prints

including assembly drawings if appropriate, and takes it one

step further and teaches concepts such as FEA, tolerancing, and

parametric design. This book comes with instructional videos

showing you how to perform each of the tutorials. It also comes

with instructional videos showing how to complete each problem

in the book. The exception to this is when a problem is open

ended and each student will get different results. After

completing all the tutorials in this book, you will be able to

design moderately difficult parts and assemblies in a realistic manner. This book is perfect for a freshman design class that wishes to include realistic design problems within their curriculum. Structure Project Based SOLIDWORKS is arranged in projects. For example, Chapter two deals with the modeling of a Connecting Rod, Chapter three continues with the connecting rod to introduce the concept of configurations, Chapter four creates a part print of the connecting rod, and Chapter five wraps up the project by performing a static FEA on the connecting rod. At the beginning of each chapter a list of prerequisite tutorials or knowledge is listed. You do not necessarily need to complete the tutorials within the book in order, but make sure that you have the prerequisite knowledge before you begin.

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 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. 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.

SOLIDWORKS 2018 Tutorial with Video Instruction

Official Guide to Certified SolidWorks Associate Exams - CSWA, CSDA, CSWSA-FEA SolidWorks 2015, 2014, 2013, and 2012

Project Based SOLIDWORKS 2020

Drawing and Detailing with SolidWorks 2014

Drawing and Detailing With Solidworks 2012

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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 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.

This book will provide you with a wealth of information about the three segments of the CSWP CORE exam. The intended audience for this book is a person who has passed the CSWA exam and who has eight or more months of SOLIDWORKS training and usage. This guide is not intended to teach you how to use SOLIDWORKS, but is written to provide you with CSWP exam tips, hints and information on sample questions and categories that are aligned with the exam. This guide is written to help you take and pass the CSWP exam. The book is organized into three chapters. Each chapter is focused on a segment of the CSWP CORE exam. This is not intended to be a step-by-step book. Goals of this book The primary goal is not only to help you pass the CSWP CORE exam, but also to ensure that you understand and comprehend the concepts and implementation details of the process. The second goal is to provide the most comprehensive coverage of CSWP CORE 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 all three segments of the CSWP CORE exam. Who this book is for The intended audience for this book and the CSWP exam is a person who has passed the CSWA exam and who has eight or more months of SOLIDWORKS training and usage. However, passing the CSWA exam is not a prerequisite for taking the CSWP exam if you are a commercial user in industry. For students that take the CSWP exam through their school, you must first pass the CSWA exam.

- 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.

Introduction to Static Analysis Using SolidWorks Simulation

Analysis of Machine Elements Using SolidWorks Simulation 2012

Engineering Graphics with SolidWorks 2012

Introduction to Mechanism Design

with Computer Applications

Engineering & Computer Graphics Workbook Using SOLIDWORKS 2017 is an exercise-based workbook that uses step-by-step tutorials to cover the fundamentals of SOLIDWORKS 2017. The intended audience is college undergraduate engineering majors, but it could also be used in pre-college introductory engineering courses or by self learners. The text follows an educational paradigm that was researched and developed by the authors over many years. The paradigm is based on the concurrent engineering approach to engineering design in which the 3-D solid model data serves as the central hub for all aspects of the design process. The workbook systematically instructs the students to develop 3-D models using the rich tools afforded in SOLIDWORKS. The exercises then proceed to instruct the students on applications of the solid model to design analysis using finite elements, to assembly modeling and checking, to kinematic simulation, to rapid prototyping, and finally to projecting an engineering drawing. The workbook is ideally suited for courses in which a reverse engineering design project is assigned. This book contains clear and

easy to understand instructions that enable the students to robustly learn the main features of SOLIDWORKS, with little or no instructor input.

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. 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.

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 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, 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.

This book, along with the companion disc that accompanies it, will provide you with a wealth of information about the three segments of the CSWP CORE exam. The intended audience for this book is a person who has passed the CSWA exam and who has eight or more months of SolidWorks training and usage. This guide is not intended to teach you how to use SolidWorks, but is written to provide you with CSWP exam tips, hints and information on sample questions and categories that are aligned with the exam. This guide is written to help you take and pass the CSWP exam. This book comes with a companion DVD containing segment videos for you to follow while you use the book. Each segment video provides valuable information, tips and tricks to successfully pass the CSWP CORE exam. SolidWorks model files, in both their initial and final state, are provided on this DVD for both SolidWorks 2012 and 2013. The book is organized into three chapters. Each chapter is focused on a segment of the CSWP CORE exam. This is not intended to be a step-by-step book.

Official Certified SOLIDWORKS Professional Certification Guide (2018, 2019, 2020)

Official Certified SOLIDWORKS Professional Certification Guide (SOLIDWORKS 2015 - 2017)

Official Certified SolidWorks Professional (CSWP) Certification Guide with Video Instruction

Introduction to Finite Element Analysis Using SolidWorks Simulation 2012

Introduction to Solid Modeling Using SolidWorks 2012

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. 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. 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 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.

Drawing and Detailing with SolidWorks 2014 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.

Engineering Design with SolidWorks 2011

Introduction to Finite Element Analysis Using SOLIDWORKS Simulation

2015

Commands Guide Tutorial for SolidWorks 2012

Lab-on-a-Chip Devices and Micro-Total Analysis Systems

Official Guide to Solidworks Associate Exams

The Official Guide to Certified SolidWorks Associate Exams: CSWA, CSDA, and 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 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. CSWA Exam Audience The intended audience for this book trying to take and pass the CSWA exam is anyone 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, 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. CSDA Exam Audience The intended audience for this book trying to take and pass the CSDA exam is anyone interested in Sustainable design and life cycle assessment. Although no hands on usage of SolidWorks is required for the CSDA 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. CSWSA FEA Exam Audience The intended audience for this book trying to take and pass the CSWSA-FEA exam is anyone 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 required understanding types of questions, layout and what to expect when taking the CSWSA-FEA exam.

The primary goal of Introduction to Finite Element Analysis Using SOLIDWORKS Simulation 2015 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 Modal 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 fourteen 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. 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 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.

Revised and refreshed for SOLIDWORKS 2020, Design Workbook Using SOLIDWORKS 2020 is an exercise-based book that guides you through a series of easy to understand, step-by-step tutorials that cover basic SOLIDWORKS commands. The 2020 edition includes updated SOLIDWORKS processes and methods to create models more efficiently than ever before. The intended audience is undergraduate engineering majors, but it can also be used in pre-college engineering courses. The engaging and straightforward lab exercises in this workbook are also ideal for self-learners. The text takes an educational approach where you learn through repetition, starting with simple models, and introducing more complex models and commands as the book progresses, leading you to create assemblies, make Finite Element Analyses, detail manufacturing drawings, complete dynamic simulations, and learn the basics of rapid prototyping. The principles of engineering graphics are also incorporated into the lessons throughout the text. The commands and functions learned throughout this book will help a new user understand their use, how to apply them in different situations, and design ever more complex components.

SOLIDWORKS 2020 Tutorial

SolidWorks 2012 Tutorial

No Experience Required

Engineering Design with SolidWorks 2012

Engineering Design with SolidWorks 2011 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 beginning 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: SimulationXpress, Sustainability / SustainabilityXpress and DFMXpress and Intelligent Modeling techniques. 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 Project 1 - 8 to achieve the design goals. 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 enclosed Multi-media CD. 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 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 creation of just a 3D model. The book is designed to compliment the SolidWorks Tutorials contained in SolidWorks 2011.

This book covers all the steps in order to fabricate a lab-on-a-chip device starting from the idea, the design, simulation, fabrication and final evaluation. Additionally, it includes basic theory on microfluidics essential to understand how fluids behave at such reduced scale. Examples of successful histories of lab-on-a-chip systems that made an impact in fields like biomedicine and life sciences are also provided. This book also:

- Provides readers with a unique approach and toolset for lab-on-a-chip development in terms of materials, fabrication techniques, and components
- Discusses novel materials and techniques, such as paper-based devices and synthesis of chemical compounds on-chip
- Covers the four key aspects of development: basic theory, design, fabrication, and testing
- Provides readers with a comprehensive list of the most important journals, blogs, forums, and conferences where microfluidics and lab-on-a-chip news, methods, techniques and challenges are presented and discussed, as well as a list of companies providing design and simulation support, components, and/or developing lab-on-a-chip and microfluidic devices.

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 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.

Engineering Design with SolidWorks 2013 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: SimulationXpress, Sustainability / SustainabilityXpress and DFMXpress and Intelligent Modeling techniques. 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 Project 1 - 8 to achieve the design goals. 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 enclosed Video Instruction DVD. 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 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 every day. Their responsibilities go far beyond the creation of just a 3D model. The book is design to compliment the SolidWorks Tutorials contained in SolidWorks 2013. There are over 2.5 hours of video instructions on the enclosed DVD.

Cswa, Cstda, Cswsa-fea

Introduction to Solid Modeling Using Solidworks 2012

Engineering Analysis with SolidWorks Simulation 2012

Engineering Design with SolidWorks 2013 and Video Instruction

Introduction to Finite Element Analysis Using SolidWorks Simulation 2013

Analysis of Machine Elements Using SolidWorks Simulation 2012 is written primarily for first-time SolidWorks Simulation 2012 users who wish to understand finite element analysis capabilities applicable to stress analysis of mechanical elements. The focus of examples is on problems commonly found in an introductory, undergraduate, Design of Machine Elements or similarly named courses. In order to be compatible with most machine design textbooks, this text begins with problems that can be solved with a basic understanding of mechanics of materials. Problem types quickly migrate to include states of stress found in more specialized situations common to a design of mechanical elements course. Paralleling this progression of problem types, each chapter introduces new software concepts and capabilities. Many examples are accompanied by problem solutions based on use of classical equations for stress determination. Unlike many step-by-step user guides that only list a succession of steps, which if followed correctly lead to successful solution of a problem, this text attempts to provide insight into why each step is performed. This approach amplifies two fundamental tenets of this text. The first is that a better understanding of course topics related to stress determination is realized when classical methods and finite element solutions are considered together. The second tenet is that finite element solutions should always be verified by checking, whether by classical stress equations or experimentation. Each chapter begins with a list of learning objectives related to specific capabilities of the SolidWorks Simulation program introduced in that chapter. Most software capabilities are repeated in subsequent examples so that users gain familiarity with their purpose and are capable of using them in future problems. All end-of-chapter problems are accompanied by evaluation "check sheets" to facilitate grading assignments.

Uses Finite Element Analysis (FEA) as Implemented in SolidWorks Simulation Outlining a path that readers can follow to ensure a static analysis that is both accurate and sound, Introduction to Static Analysis using SolidWorks Simulation effectively applies one of the most widely used software packages for engineering design to the concepts of static analysis. This text utilizes a step-by-step approach to introduce the use of a finite element simulation within a computer-aided design (CAD) tool environment. It does not center on formulae and the theory of FEM; in fact, it contains essentially no theory on FEM other than practical guidelines. The book is self-contained and enables the reader to progress independently without an instructor. It is a valuable guide for students, educators, and practicing professionals who wish to forego commercial training programs, but need to refresh or improve their knowledge of the subject.

Classroom Tested with Figures, Examples, and Homework Problems The book contains more than 300 illustrations and extensive explanatory notes covering the features of the SolidWorks (SW) Simulation software. The author presents

commonly used examples and techniques highlighting the close interaction between CAD modelling and FE analysis. She describes the stages and program demands used during static analysis, details different cases, and explores the impact of selected options on the final result. In addition, the book includes hands-on exercises, program commands, and a summary after each chapter. Explores the static studies of simple bodies to more complex structures Considers different types of loads and how to start the loads property managers Studies the workflow of the run analysis and discusses how to assess the feedback provided by the study manager Covers the generation of graphs Determines how to assess the quality of the created mesh based on the final results and how to improve the accuracy of the results by changing the mesh properties Examines a machine unit with planar symmetrical geometry or with circular geometry exposed to symmetrical boundary conditions Compares 3D FEA to 2D FEA Discusses the impact of the adopted calculating formulation by comparing thin-plate results to thick-plate results Introduction to Static Analysis using SolidWorks Simulation equips students, educators, and practicing professionals with an in-depth understanding of the features of SW Simulation applicable to static analysis (FEA/FEM).

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, 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 creation of just a 3D model.

Engineering Design with SolidWorks 2012 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 beginning 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: SimulationXpress, Sustainability / SustainabilityXpress and DFMXpress and Intelligent Modeling techniques. 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 - 8 to achieve the design goals. 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 enclosed multimedia DVD. 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 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 creation of just a 3D model. The book is designed to compliment the SolidWorks Tutorials contained in SolidWorks 2012.

Parametric Modeling with SolidWorks 2012

Design of Assistive Technology for Ageing Populations

*A Practical Guide
Design Workbook Using SOLIDWORKS 2020
Level I*

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.

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. Introduction to Mechanism Design: with Computer Applications provides an updated approach to undergraduate Mechanism Design and Kinematics courses/modules for engineering students. The use of web-based simulations, solid modeling, and software such as MATLAB and Excel is employed to link the design process with the latest software tools for the design and analysis of mechanisms and machines. While a mechanical engineer might brainstorm with a pencil and sketch pad, the final result

is developed and communicated through CAD and computational visualizations. This modern approach to mechanical design processes has not been fully integrated in most books, as it is in this new text.

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.

Sheet Metal, Top Down Design, Weldments, Surfacing and Molds

Assembly Modeling with SolidWorks 2012

Beginner's Guide to Solidworks 2012

Commands Guide Tutorial for SolidWorks 2013

SolidWorks 2010

The only continuous, step-by-step tutorial for SolidWorks SolidWorks is a 3D CAD manufacturing software package that has been used to design everything from aerospace robotics to bicycles. This book teaches beginners to use SolidWorks through a step-by-step tutorial, letting you build, document, and present a project while you learn. Tools and functionality are explained in the context of professional, real-world tasks and workflows. You will learn the essential functions and gain the skills to use the software at once. SolidWorks is a popular design software for manufacturing, and this book introduces it in the context of actually

creating an object Begins with an overview of SolidWorks conventions and the interface Explains how to create models and drawings, create a revolved part and subassembly, and model parts within a subassembly Explores modification capabilities and drawing and Bill of Materials templates Moves on to top-level assembly models and drawings, Toolbox components and the Design Library, mates, export and printing capabilities, and creating renderings Includes a glossary, a foreword from the SolidWorks product manager, and downloadable tutorial files SolidWorks 2010: No Experience Required quickly turns beginners into confident users of SolidWorks.

This book focuses on various aspects of research on ageing, including in relation to assistive technology; dignity of aging; how technology can support a greater understanding of the experience of physically aging and cognitive changes; mobility issues associated with the elderly; and emerging technologies. The 80+ age group represents an expanding market, with an estimated worth of £21.4 billion a year. Everyone is affected by this shift in demographics - we are getting older and may become carers - and we need to prepare ourselves and adjust our surroundings for longer life. Products, services and environments have been changing in response to the changing population. Presenting international design research to demonstrate the thinking and ideas shaping design, this book is a valuable resource for designers; product developers; employers; gerontologists; and medical, health and service providers; as well as everyone interested in aging.

This book, along with the companion disc that accompanies it, will provide you with a wealth of information about the three segments of the CSWP CORE exam. The intended audience for this book is a person who has passed the CSWA exam and who has eight or more months of SolidWorks training and usage. This guide is not intended to teach you how to use SolidWorks, but is written to provide you with CSWP exam tips, hints and information on sample questions and categories that are aligned with the exam. This guide is written to help you take and pass the CSWP exam. This book comes with a companion disc containing segment videos for you to follow while you use the book. Each segment video provides valuable information, tips and tricks to successfully pass the CSWP CORE exam. SolidWorks model files, in both their initial and final state, are provided on this disc for SolidWorks 2012, 2013 and 2014. The book is organized into three chapters. Each chapter is focused on a segment of the CSWP CORE exam. This is not intended to be a step-by-step book.

Official Certified SolidWorks Professional (CSWP) Certification Guide and Video Instruction

Beginner's Guide to SOLIDWORKS 2021 - Level I