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## BROOKLYN TRISTIN

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### **Solidworks 2013 Bible** Make Books

This book is written to help you learn the core concepts and steps used to conduct virtual machining using CAMWorks. CAMWorks is a virtual machining tool designed to increase your productivity and efficiency by simulating machining operations on a computer before creating a physical product. CAMWorks is embedded in SOLIDWORKS as a fully integrated module. CAMWorks provides excellent capabilities for machining simulations in a virtual environment. Capabilities in CAMWorks allow you to select CNC machines and tools, extract or create machinable features, define machining operations, and simulate and visualize machining toolpaths. In addition, the machining time estimated in CAMWorks provides an important piece of information for estimating product manufacturing cost without physically manufacturing the product. The book covers the basic concepts and frequently used commands and options you'll need to know to advance from a novice to an intermediate level CAMWorks user. Basic concepts and commands introduced include extracting machinable features (such as 2.5 axis features), selecting machine and tools, defining machining parameters

(such as feed rate), generating and simulating toolpaths, and post processing CL data to output G-codes for support of CNC machining. The concepts and commands are introduced in a tutorial style presentation using simple but realistic examples. Both milling and turning operations are included. One of the unique features of this book is the incorporation of the CL (cutter location) data verification by reviewing the G-codes generated from the toolpaths. This helps you understand how the G-codes are generated by using the respective post processors, which is an important step and an ultimate way to confirm that the toolpaths and G-codes generated are accurate and useful. This book is intentionally kept simple. It primarily serves the purpose of helping you become familiar with CAMWorks in conducting virtual machining for practical applications. This is not a reference manual of CAMWorks. You may not find everything you need in this book for learning CAMWorks. But this book provides you with basic concepts and steps in using the software, as well as discussions on the G-codes generated. After going over this book, you will develop a clear understanding in using CAMWorks for virtual machining simulations, and should be able to apply the knowledge and skills acquired to carry out machining assignments and bring machining consideration into product

design in general. Who this book is for This book should serve well for self-learners. A self-learner should have a basic physics and mathematics background. We assume that you are familiar with basic manufacturing processes, especially milling and turning. In addition, we assume you are familiar with G-codes. A self-learner should be able to complete the ten lessons of this book in about forty hours. This book also serves well for class instructions. Most likely, it will be used as a supplemental reference for courses like CNC Machining, Design and Manufacturing, Computer-Aided Manufacturing, or Computer-Integrated Manufacturing. This book should cover four to five weeks of class instructions, depending on the course arrangement and the technical background of the students. What is virtual machining? Virtual machining is the use of simulation-based technology, in particular, computer-aided manufacturing (CAM) software, to aid engineers in defining, simulating, and visualizing machining operations for parts or assembly in a computer, or virtual, environment. By using virtual machining, the machining process can be defined and verified early in the product design stage. Some, if not all, of the less desirable design features in the context of part manufacturing, such as deep pockets, holes or fillets of different sizes, or cutting on multiple sides, can be detected and addressed while the product design is still being finalized. In addition, machining-related problems, such as undesirable surface finish, surface gouging, and tool or tool holder colliding with stock or fixtures, can be identified and eliminated before mounting a stock on a CNC machine at shop floor. In addition, manufacturing cost, which constitutes a significant portion of the product cost, can be estimated using the machining time estimated in the virtual machining simulation. Virtual machining allows engineers to conduct machining process planning, generate machining toolpaths, visualize and simulate machining operations, and estimate machining time. Moreover, the toolpaths generated can be converted into NC codes to machine functional parts as well as die or mold for part production. In most cases, the toolpath is generated in a so-called CL data format and then converted to G-codes using respective post processors.

#### Design and Modeling of Mechanical Systems—III Elsevier

This book gathers papers addressing state-of-the-art research in all areas of information and communication technologies and their applications in intelligent computing, cloud storage, data mining and software analysis. It presents the outcomes of the Fourth International Conference on Information and Communication Technology for Intelligent Systems, which was held in Ahmedabad, India. Divided into two volumes, the book discusses the fundamentals of various data analysis techniques and algorithms, making it a valuable resource for researchers and practitioners alike.

#### SOLIDWORKS 2021 Advanced Techniques Elsevier

SOLIDWORKS 2016: A Power Guide for Beginners and Intermediate Users textbook is designed for instructor-led courses as well as for self-paced learning. This textbook is intended to help engineers and designers who are interested in learning SOLIDWORKS for creating 3D mechanical designs. It will be a great starting point for new SOLIDWORKS users and a great teaching aid in classroom training. This textbook contains 13 chapters which consist of 758 pages covering major environments of SOLIDWORKS: Part, Assembly, and Drawing, which teaches you how to use the SOLIDWORKS mechanical design software to build parametric models and assemblies, and how to make drawings of parts and assemblies. Every chapter of this textbook contains tutorials which intend to help users to experience how things can be done in SOLIDWORKS step by step. Moreover, every chapter ends with hands-on test drives which

allow users to experience themselves the ease-of-use and powerful capabilities of SOLIDWORKS. Table of Contents: Chapter 1. Introduction to SOLIDWORKS Chapter 2. Drawing Sketches with SOLIDWORKS Chapter 3. Editing and Modifying Sketches Chapter 4. Applying Geometric Relations and Dimensions Chapter 5. Creating First/Base Feature of Solid Models Chapter 6. Creating Reference Geometries Chapter 7. Advanced Modeling - I Chapter 8. Advanced Modeling - II Chapter 9. Patterning and Mirroring Chapter 10. Advanced Modeling - III Chapter 11. Working with Assemblies - I Chapter 12. Working with Assemblies - II Chapter 13. Working with Drawing

#### **Chemical Engineering Design Ashrae**

Discover BIM: A better way to build better buildings Building Information Modeling (BIM) offers a novel approach to design, construction, and facility management in which a digital representation of the building product and process is used to facilitate the exchange and interoperability of information in digital format. BIM is beginning to change the way buildings look, the way they function, and the ways in which they are designed and built. The BIM Handbook, Third Edition provides an in-depth understanding of BIM technologies, the business and organizational issues associated with its implementation, and the profound advantages that effective use of BIM can provide to all members of a project team. Updates to this edition include: Information on the ways in which professionals should use BIM to gain maximum value New topics such as collaborative working, national and major construction clients, BIM standards and guides A discussion on how various professional roles have expanded through the widespread use and the new avenues of BIM practices and services A wealth of new case studies that clearly illustrate exactly how BIM is applied in a wide variety of conditions Painting a colorful and thorough picture of the state of the art in building information modeling, the BIM Handbook, Third Edition guides readers to successful implementations, helping them to avoid needless frustration and costs and take full advantage of this paradigm-shifting approach to construct better buildings that consume fewer materials and require less time, labor, and capital resources.

#### SolidWorks 2010 Bible IBM Redbooks

SOLIDWORKS 2021 Advanced Techniques picks up where SOLIDWORKS 2021 Intermediate Skills leaves off. Its aim is to take you from an intermediate user with a basic understanding of SOLIDWORKS and modeling techniques to an advanced user capable of creating complex models and able to use the advanced tools provided by SOLIDWORKS. The text covers parts, surfaces, SimulationXpress, sheet metal, top-down assemblies and core and cavity molds. Every lesson and exercise in this book was created based on real world projects. Each of these projects has been broken down and developed into easy and comprehensible steps. Furthermore, at the end of every chapter there are self test questionnaires to ensure that you have gained sufficient knowledge from each section before moving on to more advanced lessons. This book takes the approach that in order to understand SOLIDWORKS, inside and out, you should create everything from the beginning and take it step by step. Who this book is for This book is for the intermediate to advanced user who has already completed the SOLIDWORKS Basic Tools book and may have also completed the SOLIDWORKS Intermediate Skills book. People who are very familiar with SOLIDWORKS and its add ins will also find this book to be a valuable resource.

#### SolidWorks 2014 Tutorial with Video Instruction Hanser Publications

This book will teach you all the important concepts and steps used to conduct machining simulations using SOLIDWORKS CAM. SOLIDWORKS CAM is a parametric, feature-based machining

simulation software offered as an add-in to SOLIDWORKS. It integrates design and manufacturing in one application, connecting design and manufacturing teams through a common software tool that facilitates product design using 3D solid models. By carrying out machining simulation, the machining process can be defined and verified early in the product design stage. Some, if not all, of the less desirable design features of part manufacturing can be detected and addressed while the product design is still being finalized. In addition, machining-related problems can be detected and eliminated before mounting a stock on a CNC machine, and manufacturing cost can be estimated using the machining time estimated in the machining simulation. This book is intentionally kept simple. It's written to help you become familiar with the practical applications of conducting machining simulations in SOLIDWORKS CAM. This book provides you with the basic concepts and steps needed to use the software, as well as a discussion of the G-codes generated. After completing this book, you should have a clear understanding of how to use SOLIDWORKS CAM for machining simulations and should be able to apply this knowledge to carry out machining assignments on your own product designs. In order to provide you with a more comprehensive understanding of machining simulations, the book discusses NC (numerical control) part programming and verification, as well as introduces applications that involve bringing the G-code post processed by SOLIDWORKS CAM to a HAAS CNC mill and lathe to physically cut parts. This book points out important, practical factors when transitioning from virtual to physical machining. Since the machining capabilities offered in the 2020 version of SOLIDWORKS CAM are somewhat limited, this book introduces third-party CAM modules that are seamlessly integrated into SOLIDWORKS, including CAMWorks, HSMWorks, and Mastercam for SOLIDWORKS. This book covers basic concepts, frequently used commands and options required for you to advance from a novice to an intermediate level SOLIDWORKS CAM user. Basic concepts and commands introduced include extracting machinable features (such as 2.5 axis features), selecting a machine and cutting tools, defining machining parameters (such as feed rate, spindle speed, depth of cut, and so on), generating and simulating toolpaths, and post processing CL data to output G-code for support of physical machining. The concepts and commands are introduced in a tutorial style presentation using simple but realistic examples. Both milling and turning operations are included. One of the unique features of this book is the incorporation of the CL data verification by reviewing the G-code generated from the toolpaths. This helps you understand how the G-code is generated by using the respective post processors, which is an important step and an excellent way to confirm that the toolpaths and G-code generated are accurate and useful.

#### **Information and Communication Technology for Intelligent Systems** SDC Publications

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, 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 Turbine Pilot's Flight Manual* SDC Publications

Extensive animation and clear narration highlight this first-of-its-kind CD-ROM. It shows all major systems of jet and turboprop aircraft and how they work. Ideal for self-instruction, classroom instruction or just the curious at heart.

#### *Injection Mold Design Engineering* Springer Nature

The SolidWorks Electrical 2016 Black Book, is written to help professionals as well as learners in performing various tedious jobs in Electrical control designing. The book follows the best proven step by step methodology. The book covers almost all the information required by a learner to master the SolidWorks Electrical. The book starts with basics of Electrical Designing, goes through all the Electrical controls related tools and ends up with practical examples of electrical schematics and 3D. Chapters also cover Reports that make you comfortable in creating and editing electrical component reports. In our endeavor to make the book helpful to student as well as professionals, we have included a chapter on Electrical 3D in this edition of book. Some of the salient features of this book are : In-Depth explanation of concepts Every new topic of this book starts with the explanation of the basic concepts. In this way, the user becomes capable of relating the things with real world. Topics Covered Every chapter starts with a list of topics being covered in that chapter. In this way, the user can easily find the topic of his/her interest easily. Instruction through illustration The instructions to perform any action are provided by maximum number of illustrations so that the user can perform the actions discussed in the book easily and effectively. There are about 500 illustrations that make the learning process effective. Tutorial point of view At the end of concept's explanation, the tutorial makes the understanding of users firm and long lasting. Almost each chapter of the book is written in the form of tutorial. Project Free projects and exercises are provided to students for practicing. For Faculty If you are a faculty member, then you can ask for video tutorials on any of the topic, exercise, tutorial, or concept.

#### *Autodesk Inventor Exercises* Wiley

SOLIDWORKS 2016: A Tutorial Approach introduces readers to SOLIDWORKS 2016 software, one of the world's leading parametric solid modeling packages. In this textbook, the author has adopted a tutorial-based approach to explain the fundamental concepts of SOLIDWORKS. This textbook 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 textbook 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 textbook covers a wide range of topics such as Sketching, Part Modeling, Assembly Modeling, Drafting in SOLIDWORKS 2016. In addition, this textbook covers the basics of Mold Design, FEA, and SOLIDWORKS Simulation.

*Virtual Machining Using CAMWorks 2020 Solidworks Electrical 2016 Black Book*

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. 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.

Solidworks Electrical 2016 Black Book "O'Reilly Media, Inc."

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.

Solidworks 2016 SDC Publications

This project-oriented facilities design and material handling reference explores the techniques and procedures for developing an efficient facility layout, and introduces some of the state-of-the-art tools involved, such as computer simulation. A "how-to," systematic, and methodical approach leads readers through the collection, analysis and development of information to produce a quality functional plant layout. Lean manufacturing; work cells and group technology; time standards; the concepts behind calculating machine and personnel requirements, balancing

assembly lines, and leveling workloads in manufacturing cells; automatic identification and data collection; and ergonomics. For facilities planners, plant layout, and industrial engineer professionals who are involved in facilities planning and design.

**Finite Element Analysis Concepts** Createspace Independent Publishing Platform

Thanks to the decreasing cost of prototyping, it's more feasible for professional makers and first-time entrepreneurs to launch a hardware startup. But exactly how do you go about it? This book provides the roadmap and best practices you need for turning a product idea into a full-fledged business. Written by three experts from the field, The Hardware Startup takes you from idea validation to launch, complete with practical strategies for funding, market research, branding, prototyping, manufacturing, and distribution. Two dozen case studies of real-world startups illustrate possible successes and failures at every stage of the process. Validate your idea by learning the needs of potential users Develop branding, marketing, and sales strategies early on Form relationships with the right investment partners Prototype early and often to ensure you're on the right path Understand processes and pitfalls of manufacturing at scale Jumpstart your business with the help of an accelerator Learn strategies for pricing, marketing, and distribution Be aware of the legal issues your new company may face

Construction Drawings and Details for Interiors SDC Publications

This practical resource provides a series of Inventor® exercises covering several topics, including: sketches part models assemblies drawing layouts presentations sheet metal design welding for users with some familiarity with Autodesk® Inventor, or other similar feature-based modelling software such as Solid Works®, CATIA®, Pro/ENGINEER and Creo Parametric, and who want to become proficient. Exercises are set out in a structured way and are suitable for releases of Inventor from versions 7 to 13.

SOLIDWORKS 2021 Reference Guide Taylor & Francis

This book provides a structured methodology and scientific basis for engineering injection molds. The topics are presented in a top-down manner, beginning with introductory definitions and the big picture before proceeding to layout and detailed design of molds. The book provides very pragmatic analysis with worked examples that can be readily adapted to real-world product design applications. It will help students and practitioners to understand the inner workings of injection molds and encourage them to think outside the box in developing innovative and highly functional mold designs. This new edition has been extensively revised with new content that includes more than 80 new and revised figures and tables, coverage of development strategy, 3D printing, in-mold sensors, and practical worksheets, as well as a completely new chapter on the mold commissioning process, part approval, and mold maintenance.

Make Pearson Educación

A comprehensive resource packed with information for both beginners and advanced users SolidWorks is the leading 3D solid modeling software used in computer-aided design. It's powerful but not simple. This complete guide introduces beginners to the software but then goes far beyond, covering numerous details that advanced users have requested. Beginners will learn not only how the software works but why, while more experienced users will learn all about search criteria, Pack-and-Go, other file management concepts, and much more. A valuable companion website contains before and after real-world parts and assemblies along with many example files used in the text. Additionally, the text of the book is augmented by video tutorials with author voice-over which can be found on the website. SolidWorks is the leading 3D CAD program, and previous editions of this book have

sold more than 33,000 copies Covers necessary information to give beginners a solid foundation in the software, including part and assembly modeling and 2D drawing techniques Addresses a wide range of advanced topics not treated in other books, including best practices, search criteria, Pack-and-Go, and other file management concepts Includes tutorials on both beginning and advanced topics, with videos; sample part, assembly, and drawing files; and before-and-after example files available on the companion website SolidWorks 2013 Bible is the ultimate resource on SolidWorks 2013, the book beginners can start with and advanced users will want to keep close at hand.

HVAC Design Manual for Hospitals and Clinics McGraw Hill Professional

Take your idea from concept to production with this unique guide Whether it's called physical computing, ubiquitous computing, or the Internet of Things, it's a hot topic in technology: how to channel your inner Steve Jobs and successfully combine hardware, embedded software, web services, electronics, and cool design to create cutting-edge devices that are fun, interactive, and practical. If you'd like to create the next must-have product, this unique book is the perfect place to start. Both a creative and practical primer, it explores the platforms you can use to develop hardware or software, discusses design concepts that will make your products eye-catching and appealing, and shows you ways to scale up from a single prototype to mass production. Helps software engineers, web designers, product designers, and electronics engineers start designing products using the Internet-of-Things approach Explains how to combine sensors, servos, robotics, Arduino chips, and more with various networks or the Internet, to create interactive, cutting-edge devices Provides an overview of the necessary steps to take your idea from concept through production If you'd like to design for the future, *Designing the Internet of Things* is a great place to start.

**SOLIDWORKS 2016 Tutorial with Video Instruction** John Wiley & Sons

SOLIDWORKS 2016 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 three sections. Chapters 1 - 6 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 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. Review Chapter 11 on Additive Manufacturing (3D printing) and its benefits and features. Understand 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. *Designing the Internet of Things* SDC Publications Chemical Engineering Design, Second Edition, deals with the application of chemical engineering principles to the design of chemical processes and equipment. Revised throughout, this edition has been specifically developed for the U.S. market. It provides the latest US codes and standards, including API, ASME and ISA design codes and ANSI standards. It contains new discussions of conceptual plant design, flowsheet development, and revamp design; extended coverage of capital cost estimation, process costing, and economics; and new chapters on equipment selection, reactor design, and solids handling processes. A rigorous pedagogy assists learning, with detailed worked examples, end of chapter exercises, plus supporting data, and Excel spreadsheet calculations, plus over 150 Patent References for downloading from the companion website. Extensive instructor resources, including 1170 lecture slides and a fully worked solutions manual are available to adopting instructors. This text is designed for chemical and biochemical engineering students (senior undergraduate year, plus appropriate for capstone design courses where taken, plus graduates) and lecturers/tutors, and professionals in industry (chemical process, biochemical, pharmaceutical, petrochemical sectors). New to this edition: Revised organization into Part I: Process Design, and Part II: Plant Design. The broad themes of Part I are flowsheet development, economic analysis, safety and environmental impact and optimization. Part II contains chapters on equipment design and selection that can be used as supplements to a lecture course or as essential references for students or practicing engineers working on design projects. New discussion of conceptual plant design, flowsheet development and revamp design Significantly increased coverage of capital cost estimation, process costing and economics New chapters on equipment selection, reactor design and solids handling processes New sections on fermentation, adsorption, membrane separations, ion exchange and chromatography Increased coverage of batch processing, food, pharmaceutical and biological processes All equipment chapters in Part II revised and updated with current information Updated throughout for latest US codes and standards, including API, ASME and ISA design codes and ANSI standards Additional worked examples and homework problems The most complete and up to date coverage of equipment selection 108 realistic commercial design projects from diverse industries A rigorous pedagogy assists learning, with detailed worked examples, end of chapter exercises, plus supporting data and Excel spreadsheet calculations plus over 150 Patent References, for downloading from the companion website Extensive instructor resources: 1170 lecture slides plus fully worked solutions manual available to adopting instructors