

Engineering Graphics With Autocad By Bethine

The study of engineering drawing builds the foundation of analytical capabilities for solving a wide variety of engineering problems and has real-time applications in all branches of engineering. Student-friendly, lucid and comprehensive, this book adopts step-by-step instructions to explain and solve problems. A major highlight of this book is that all the drawings are prepared using the latest AutoCAD software.

- Blends technical drawing and an introduction to AutoCAD 2022
- Covers both mechanical and architectural projects
- Twenty six hours of video instruction is included with each book
- Drafting theory is incorporated throughout the text
- Designed to be used in a single semester, instructor led course
- Each chapter contains key terms, unit summaries, review questions and drawing projects

Technical Drawing 101 covers topics ranging from the most basic, such as making freehand, multiview sketches of machine parts, to the advanced—creating an AutoCAD dimension style containing the style settings defined by the ASME Y14.5-2009 Dimensioning and Tolerancing standard. But unlike the massive technical drawing reference texts on the market, Technical Drawing 101 aims to present just the right mix of information and projects that can be reasonably covered by faculty, and assimilated by students, in one semester. Both mechanical and architectural projects are introduced to capture the interest of more students and to offer a broader appeal. The authors have also created extensive video training (176 videos, 26 hours total) that is included with every copy of the book. In these videos the authors start off by getting students comfortable with the user interface and demonstrating how to use many of AutoCAD's commands and features. The videos progress to more advanced topics where the authors walk students through completing several of the projects in the book. The CAD portion of the text incorporates drafting theory whenever possible and covers the basics of drawing setup (units, limits, and layers), the tools of the Draw, Modify, and Dimension toolbars, and the fundamentals of 3D modeling. By focusing on the fundamental building blocks of CAD, Technical Drawing 101 provides a solid foundation for students going on to learn advanced CAD concepts and techniques (paper space, viewports, xrefs, annotative scaling, etc.) in intermediate CAD courses. In recognition of the diverse career interests of our students, Technical Drawing 101 includes projects in which students create working drawings for a mechanical assembly as well as for an architectural project. We include architectural drawing because our experience has shown that many (if not most) first-semester drafting students are interested in careers in the architectural design field, and that a traditional technical drawing text, which focuses solely on mechanical drawing projects, holds little interest for these students. The multidisciplinary approach of this text and its supporting materials are intended to broaden the appeal of the curriculum and increase student interest and, it is hoped, future enrollments.

This book is developed from the ground up to cover the syllabus announced by the AICTE in its latest model curriculum. It provides insights into traditional engineering graphics as well as treats of the subject using software AutoCAD, CATIA and ANSYS, through simple and well-explained examples along with an ample number of unsolved problems and MCQs. Screenshots have been provided after every step, making it simple to learn how to use the software for a specific solution. It targets all academics—students, and researchers as well as industry practitioners and engineers, involved in engineering drafting. The book begins by introducing the role and application of engineering drawing and describing such basics as the types of drawing sheets, lines, planes, quadrants and angles of projection, and national and international drawing standards which it calls the basic grammar for engineering graphics as a language. The book introduces the software—AutoCAD, CATIA and ANSYS emphasizing on their specific features. Equipping the reader with this ground knowledge it comes to the nitty-gritty of drawing various curves, projection of points in separate quadrants, projection of straight lines in various positions, various projections of plane surfaces, and solids like prism, pyramid, cylinder and cone. It then goes further to sections of solids wherein the placements of the cutting planes have been explained in various positions like perpendicular, parallel, and inclined to HP and VP. Having thus trained the drafter in handling the drafting tools the book graduates to more complicated material like fusion of one solid shape into another. It explores various types of them so that development of lateral surfaces of solids can be made and depicted isometrically and projected orthographically. Lastly, the book describes 3D modelling using CATIA, where solid models are drawn, and how 2D analysis is done using ANSYS.

Providing step-by-step guidance, this book teaches the engineering principles of technical graphics using AutoCAD as the major tool of implementation. Incorporating both DOS and Windows, it offers state-of-the-art coverage on the latest Release 14 version, integrates helpful screen captures throughout, and includes many new and extensive design and sketching exercises. Offers complete chapter coverage on the fundamentals of 2D construction, freehand sketching, orthographic views, dimensioning, tolerancing, the basics of 3D drawing, solid modeling, and much more. The Third Edition significantly revises the presentation and development of design exercises and the extent and depth of sketching exercises, and adds many more design problems throughout. Hundreds of screen captures and illustrations parallel written text to promote greater understanding.

Engineering Graphics Essentials with AutoCAD 2021 Instruction gives students a basic understanding of how to create and read engineering drawings by presenting principles in a logical and easy to understand manner. It covers the main topics of engineering graphics, including tolerancing and fasteners, while also teaching students the fundamentals of AutoCAD 2021. This book features independent learning material containing supplemental content to further reinforce these principles. Through its many different exercises this text is designed to encourage students to interact with the instructor during lectures, and it will give students a superior understanding of engineering graphics and AutoCAD. The independent learning material allows students to go through the topics of the book independently. The main content of the material contains pages that summarize the topics covered in the book. Each page has voice over content that simulates a lecture environment. There are also interactive examples that allow students to go through the instructor led and in-class student exercises found in the book on their own. Video examples are also included to supplement the learning process. Multimedia Content

- Summary pages with audio lectures
- Interactive exercises and puzzles
- Videos demonstrating how to solve selected problems
- AutoCAD video tutorials
- Supplemental problems and solutions
- Tutorial starter files

Each chapter contains these types of exercises:

- Instructor led in-class exercises Students complete these exercises in class using information presented by the instructor using the PowerPoint slides included in the instructor files.
- In-class student exercises These are exercises that students complete in class using the principles presented in the lecture.
- Video Exercises These exercises are found in the text and correspond to videos found in the independent learning material. In the videos the author shows how to complete the exercise as well as other possible solutions and common mistakes to avoid.
- Interactive Exercises These exercises are found in the independent learning material and allow students to test what

they've learned and instantly see the results. • End of chapter problems These problems allow students to apply the principles presented in the book. All exercises are on perforated pages that can be handed in as assignments. • Review Questions The review questions are meant to encourage students to recall and consider the content found in the text by having them formulate descriptive answers to these questions. • Crossword Puzzles Each chapter features a short crossword puzzle that emphasizes important terms, phrases, concepts, and symbols found in the text.

This book is meant for the Engineering Drawing course offered to the students of all engineering disciplines in their first year. An important highlight of this book is the inclusion of practical hints along with theory which would enable the students to make perfect drawings.

Engineering Graphics Essentials with AutoCAD 2022 Instruction gives students a basic understanding of how to create and read engineering drawings by presenting principles in a logical and easy to understand manner. It covers the main topics of engineering graphics, including tolerancing and fasteners, while also teaching students the fundamentals of AutoCAD 2022. This book features independent learning material containing supplemental content to further reinforce these principles. Through its many different exercises this text is designed to encourage students to interact with the instructor during lectures, and it will give students a superior understanding of engineering graphics and AutoCAD. The independent learning material allows students to go through the topics of the book independently. The main content of the material contains pages that summarize the topics covered in the book. Each page has voice over content that simulates a lecture environment. There are also interactive examples that allow students to go through the instructor led and in-class student exercises found in the book on their own. Video examples are also included to supplement the learning process. Multimedia Content • Summary pages with audio lectures (includes closed captioning) • Interactive exercises and puzzles • Videos demonstrating how to solve selected problems (includes closed captioning) • AutoCAD video tutorials (includes closed captioning) • Supplemental problems and solutions • Tutorial starter files

In Engineering Graphics with AutoCAD 2020, award-winning CAD instructor and author James Bethune teaches technical drawing using AutoCAD 2020 as its drawing instrument. Taking a step-by-step approach, this textbook encourages students to work at their own pace and uses sample problems and illustrations to guide them through the powerful features of this drawing program. More than 680 exercise problems provide instructors with a variety of assignment material and students with an opportunity to develop their creativity and problem-solving capabilities. Effective pedagogy throughout the text helps students learn and retain concepts: Step-by-step format throughout the text allows students to work directly from the text to the screen and provides an excellent reference during and after the course. Latest coverage is provided for dynamic blocks, user interface improvements, and productivity enhancements. Exercises, sample problems, and projects appear in each chapter, providing examples of software capabilities and giving students an opportunity to apply their own knowledge to realistic design situations. ANSI standards are discussed when appropriate, introducing students to the appropriate techniques and national standards. Illustrations and sample problems are provided in every chapter, supporting the step-by-step approach by illustrating how to use AutoCAD 2020 and its features to solve various design problems. Engineering Graphics with AutoCAD 2020 will be a valuable resource for every student wanting to learn to create engineering drawings.

Principles and Practices An Integrated Approach to Engineering Graphics and AutoCAD 2019 combines an introduction to AutoCAD 2019 with a comprehensive coverage of engineering graphics principles. By adopting this textbook, you will no longer need to adopt separate CAD and engineering graphics books for your course. Not only will this unified approach give your course a smoother flow, your students will also save money on their textbooks. What's more, the tutorial exercises in this text have been expanded to cover the performance tasks found on the AutoCAD 2019 Certified User Examination. The primary goal of Principles and Practices An Integrated Approach to Engineering Graphics and AutoCAD 2019 is to introduce the aspects of engineering graphics with the use of modern Computer Aided Design/Drafting software - AutoCAD 2019. This text is intended to be used as a training guide for students and professionals. The chapters in the text proceed in a pedagogical fashion to guide you from constructing basic shapes to making complete sets of engineering drawings. This text takes a hands-on, exercise-intensive approach to all the important concepts of Engineering Graphics, as well as in depth discussions of CAD techniques. This textbook contains a series of thirteen chapters, with detailed step-by-step tutorial-style lessons designed to introduce beginning CAD users to the graphic language used in all branches of technical industry. The CAD techniques and concepts discussed in the text are also designed to serve as the foundation to the more advanced parametric feature-based CAD packages, such as Autodesk Inventor. After completing this text your students will be prepared to pass the AutoCAD Certified User Examination. Certified User Reference Guides located at the front of the book and in each chapter show where these performance tasks are covered.

Engineering Graphics with AutoCAD 2017 teaches technical drawing using AutoCAD 2017 as its drawing instrument, complying with ANSI standards. Taking a step-by-step approach, it encourages students to work at their own pace and uses sample problems and illustrations to guide them through the powerful features of this drawing program. Nearly 150 exercise problems provide instructors with a variety of assignment material and students with an opportunity to develop their creativity and problem-solving capabilities. This book includes the following features: Step-by-step format throughout the text allows students to work directly from the text to the screen and provides an excellent reference during and after the course. Covers the latest in dynamic blocks, user interface improvements, and productivity enhancements. Exercise, sample problems and projects appear in each chapter, providing examples of software capabilities and giving students an opportunity to apply their own knowledge to realistic design situations. Includes examples of how to create an animated assembly, apply dimension to a drawing, calculate shear and bending values, and more! ANSI standards are discussed when appropriate, introducing students to the appropriate techniques and national standards. Illustrations and sample problems provided in every chapter, supporting the step-by-step approach by illustrating how to use AutoCAD 2017 and its features to solve various design problems. "

There is an old saying that an engineer describes every idea with a drawing. With the advances in computer technology and drawing software, it has never been easier, or more important, to learn computer aided design. To be effective, however, a drawing must accurately convey your intended meaning and that requires more than just knowing how to use software. This book provides you with a clear presentation of the theory of engineering graphics and the use of AutoCAD 2021 as they pertain to civil engineering applications. This combination of theory and its practical application will give you the knowledge and skills necessary to create designs that are accurate and easily understood by others. Each chapter starts with a bulleted list of chapter objectives followed by an introduction. This provides you with a general overview of the material that will be covered in the chapter. The contents of each chapter are organized into well-defined sections that contain step-by-step instructions and illustrations to help you learn to use the various AutoCAD commands. More importantly, you will also learn how and why you would use these tools in real world projects. This book has been categorized and ordered into 12 parts: • Introduction to AutoCAD 2021 ribbon interface (1-7) • Dimensioning and tolerancing using AutoCAD 2021 (8-9) • Use of AutoCAD in land survey data plotting (10-11) • The use of AutoCAD in hydrology (12-13) • Transportation engineering and AutoCAD (14-15) • AutoCAD and architecture technology (16-18) • Introduction to working drawings (19) • Plotting from AutoCAD (20) • External Reference Files - Xref (21) • Suggested drawing problems (22-23) • Bibliography • Index

Engineering Graphics with AutoCAD 2020 Macromedia Press

The book has all the assessment tools like assessment exercise, short questions with answers, fill in the blanks and multiple choice questions (MCQ).

Principles and Practices An Integrated Approach to Engineering Graphics and AutoCAD 2022 combines an introduction to AutoCAD 2022 with a comprehensive coverage of engineering graphics principles. By adopting this textbook, you will no longer need to adopt separate CAD and engineering graphics books for your course. Not only will this unified approach give your course a smoother flow, your students will also save money on their textbooks. What's more, the tutorial exercises in this text have been expanded to cover the performance tasks found on the AutoCAD 2022 Certified User Examination. The primary goal of Principles and Practices An Integrated Approach to Engineering Graphics and AutoCAD 2022 is to introduce the aspects of engineering graphics with the use of modern Computer Aided Design/Drafting software - AutoCAD 2022. This text is intended to be used as a training guide for students and professionals. The chapters in the text proceed in a pedagogical fashion to guide you from constructing basic shapes to making complete sets of engineering drawings. This text takes a hands-on, exercise-intensive approach to all the important concepts of Engineering Graphics, as well as in depth discussions of CAD techniques. This textbook contains a series of thirteen chapters, with detailed step-by-step tutorial-style lessons designed to introduce beginning CAD users to the graphic language used in all branches of technical industry. The CAD techniques and concepts discussed in the text are also designed to serve as the foundation to the more advanced parametric feature-based CAD packages, such as Autodesk Inventor. After completing this text your students will be prepared to pass the AutoCAD Certified User Examination. Certified User Reference Guides located at the front of the book and in each chapter show where these performance tasks are covered.

Engineering Graphics with AutoCAD 2015 teaches technical drawing using AutoCAD 2015 as its drawing instrument, complying with ANSI standards. Taking a step-by-step approach, it encourages students to work at their own pace and uses sample problems and illustrations to guide them through the powerful features of this drawing program. Nearly 150 exercise problems provide instructors with a variety of assignment material and students with an opportunity to develop their creativity and problem-solving capabilities. This book includes the following features: * Step-by-step format throughout the text allows students to work directly from the text to the screen and provides an excellent reference during and after the course. * Covers the latest in dynamic blocks, user interface improvements, and productivity enhancements. * Exercise, sample problems and projects appear in each chapter, providing examples of software capabilities and giving students an opportunity to apply their own knowledge to realistic design situations. Includes examples of how to create an animated assembly, apply dimension to a drawing, calculate shear and bending values, and more! * ANSI standards are discussed when appropriate, introducing students to the appropriate techniques and national standards. * Illustrations and sample problems provided in every chapter, supporting the step-by-step approach by illustrating how to use AutoCAD 2015 and its features to solve various design problems.

Engineering Graphics Essentials with AutoCAD 2018 Instruction gives students a basic understanding of how to create and read engineering drawings by presenting principles in a logical and easy to understand manner. It covers the main topics of engineering graphics, including tolerancing and fasteners, while also teaching students the fundamentals of AutoCAD 2018. This book features independent learning material containing supplemental content to further reinforce these principles. Through its many different exercises this text is designed to encourage students to interact with the instructor during lectures, and it will give students a superior understanding of engineering graphics and AutoCAD. The independent learning material allows students to go through the topics of the book independently. The main content of the material contains pages that summarize the topics covered in the book. Each page has voice over content that simulates a lecture environment. There are also interactive examples that allow students to go through the instructor led and in-class student exercises found in the book on their own. Video examples are also included to supplement the learning process.

Engineering Graphics Essentials with AutoCAD 2019 Instruction gives students a basic understanding of how to create and read engineering drawings by presenting principles in a logical and easy to understand manner. It covers the main topics of engineering graphics, including tolerancing and fasteners, while also teaching students the fundamentals of AutoCAD 2019. This book features independent learning material containing supplemental content to further reinforce these principles. Through its many different exercises this text is designed to encourage students to interact with the instructor during lectures, and it will give students a superior understanding of engineering graphics and AutoCAD. The independent learning material allows students to go through the topics of the book independently. The main content of the material contains pages that summarize the topics covered in the book. Each page has voice over content that simulates a lecture environment. There are also interactive examples that allow

students to go through the instructor led and in-class student exercises found in the book on their own. Video examples are also included to supplement the learning process.

This Book Provides A Systematic Account Of The Basic Principles Involved In Engineering Drawing. The Treatment Is Based On The First Angle Projection. Salient Features: * Nomography Explained In Detail. * 555 Self-Explanatory Solved University Problems. * Step-By-Step Procedures. * Side-By-Side Simplified Drawings. * Adopts B.I.S. And I.S.O. Standards. * 1200 Questions Included For Self Test. The Book Would Serve As An Excellent Text For B.E., B. Tech., B.Sc. (Ap. Science) Degree And Diploma Students Of Engineering. Amie Students Would Also Find It Extremely Useful.

The primary goal of AutoCAD 2013 Tutorial - First Level: 2D Fundamentals is to introduce the aspects of Computer Aided Design and Drafting (CADD). This text is intended to be used as a training guide for students and professionals. This text covers AutoCAD 2013 and the lessons proceed in a pedagogical fashion to guide you from constructing basic shapes to making multiview drawings. The lessons are further reinforced by the video presentations found on the enclosed multimedia DVD. This textbook contains a series of eleven tutorial style lessons designed to introduce beginning CAD users to AutoCAD 2013. It takes a hands-on, exercise-intensive approach to all the important 2D CAD techniques and concepts. This text is also helpful to AutoCAD users upgrading from a previous release of the software. The new improvements and key enhancements of the software are incorporated into the lessons. The 2D-CAD techniques and concepts discussed in this text are also designed to serve as the foundation to the more advanced parametric feature-based CAD packages such as Autodesk Inventor. The basic premise of this book is that the more designs you create using AutoCAD 2013, the better you learn the software. With this in mind, each lesson introduces a new set of commands and concepts, building on previous lessons. This book is intended to help readers establish a good basis for exploring and growing in the exciting field of Computer Aided Engineering.

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Principles and Practices: An Integrated Approach to Engineering Graphics and AutoCAD 2012 combines an introduction to AutoCAD 2012 with a comprehensive coverage of engineering graphics principles. By adopting this textbook, you will no longer need to adopt separate CAD and engineering graphics books for your course. Not only will this unified approach give your course a smoother flow, your students will also save money on their textbooks. What's more, the tutorial exercises in this text have been expanded to cover the performance tasks found on the AutoCAD 2012 Certified Associate Examination. The primary goal of Principles and Practices: An Integrated Approach to Engineering Graphics and AutoCAD 2012 is to introduce the aspects of engineering graphics with the use of modern Computer Aided Design/Drafting software - AutoCAD 2012. This text is intended to be used as a training guide for students and professionals. The chapters in the text proceed in a pedagogical fashion to guide you from constructing basic shapes to making complete sets of engineering drawings. This text takes a hands-on, exercise-intensive approach to all the important concepts of Engineering Graphics, as well as in depth discussions of CAD techniques. This textbook contains a series of twelve chapters, with detailed step-by-step tutorial-style lessons designed to introduce beginning CAD users to the graphic language used in all branches of technical industry. The CAD techniques and concepts discussed in the text are also designed to serve as the foundation to the more advanced parametric feature-based CAD packages, such as Autodesk Inventor. After completing this text your students will be prepared to pass the AutoCAD Certified Associate Examination. Certified Associate Reference Guides located at the front of the book and in each chapter show where these performance tasks are covered.

This Book Provides A Systematic Account Of The Basic Principles Involved In Engineering Drawing. The Treatment Is Based On The First Angle Projection. Salient Features: * Nomography Explained In Detail. * 555 Self-Explanatory Solved University Problems. * Step-By-Step Procedures. * Side-By-Side Simplified Drawings. * Adopts B.I.S. And I.S.O. Standards. * 1200 Questions Included For Self Test. The Book Would Serve As An Excellent Text For B.E., B.Tech., B.Sc. (Ap. Science) Degree And Diploma Students Of Engineering. Amie Students Would Also Find It Extremely Useful.

This is the eBook of the printed book and may not include any media, website access codes, or print supplements that may come packaged with the bound book. Engineering Graphics with AutoCAD 2017 teaches technical drawing using AutoCAD 2017 as its drawing instrument, complying with ANSI standards. Taking a step-by-step approach, it encourages students to work at their own pace and uses sample problems and illustrations to guide them through the powerful features of this drawing program. Nearly 150 exercise problems provide instructors with a variety of assignment material and students with an opportunity to develop their creativity and problem-solving capabilities. This book includes the following features: •Step-by-step format throughout the text allows students to work directly from the text to the screen and provides an excellent reference during and after the course. •Covers the latest in dynamic blocks, user interface improvements, and productivity enhancements. •Exercise, sample problems and projects appear in each chapter, providing examples of software capabilities and giving students an opportunity to apply their own knowledge to realistic design situations. Includes examples of how to create an animated assembly, apply dimension to a drawing, calculate shear and bending values, and more! •ANSI standards are discussed when appropriate, introducing students to the appropriate techniques and national standards. •Illustrations and sample problems provided in every chapter, supporting the step-by-step approach by illustrating how to use AutoCAD 2017 and its features to solve various design problems. Designed as a text for the undergraduate students of all branches of engineering, this compendium gives an opportunity to learn and apply the popular drafting software AutoCAD in designing projects. The textbook is organized in three comprehensive parts. Part I (AutoCAD) deals with the basic commands of AutoCAD, a popular drafting software used by engineers and architects. Part II (Projection Techniques) contains

various projection techniques used in engineering for technical drawings. These techniques have been explained with a number of line diagrams to make them simple to the students. Part III (Descriptive Geometry), mainly deals with 3-D objects that require imagination. The accompanying CD contains the animations using creative multimedia and PowerPoint presentations for all chapters. In a nutshell, this textbook will help students maintain their cutting edge in the professional job market. KEY FEATURES : Explains fundamentals of imagination skill in generic and basic forms to crystallize concepts. Includes chapters on aspects of technical drawing and AutoCAD as a tool. Treats problems in the third angle as well as first angle methods of projection in line with the revised code of Indian Standard Code of Practice for General Drawing.

This self-contained comprehensive book has been written to cover almost all important topics on engineering drawing to introduce polytechnic and undergraduate students of engineering to the standards and convention of technical drawing. Initial chapters of the book cover basics of line work, engineering scales, engineering curves and dimensioning practices. In the next stage, fundamental principles of projection are discussed in detail. Subsequent chapters cover topics on orthographic projections of points, lines, planes and solids. First-angle projections have been adopted throughout the chapters covering orthographic projection. With a strong emphasis on creating accurate and clear drawings, a chapter on AutoCAD software is also included in the book. The chapter is organized such that it describes the application of the software presenting and applying these standards. More importantly, all the elaborations of the software are alone making use of screen captures taken from the AutoCAD screen so that a novice user will be able to understand its application easily. A large number of solved examples with detailed steps examining methods for solving them have been incorporated to help students solve the unsolved problems.

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Principles and Practices An Integrated Approach to Engineering Graphics and AutoCAD 2018 combines an introduction to AutoCAD 2018 with a comprehensive coverage of engineering graphics principles. By adopting this textbook, you will no longer need to adopt separate CAD and engineering graphics books for your course. Not only will this unified approach give your course a smoother flow, your students will also save money on their textbooks. What's more, the tutorial exercises in this text have been expanded to cover the performance tasks found on the AutoCAD 2018 Certified User Examination. The primary goal of Principles and Practices An Integrated Approach to Engineering Graphics and AutoCAD 2018 is to introduce the aspects of engineering graphics with the use of modern Computer Aided Design/Drafting software - AutoCAD 2018. This text is intended to be used as a training guide for students and professionals. The chapters in the text proceed in a pedagogical fashion to guide you from constructing basic shapes to making complete sets of engineering drawings. This text takes a hands-on, exercise-intensive approach to all the important concepts of Engineering Graphics, as well as in depth discussions of CAD techniques. This textbook contains a series of thirteen chapters, with detailed step-by-step tutorial-style lessons designed to introduce beginning CAD users to the graphic language used in all branches of technical industry. The CAD techniques and concepts discussed in the text are also designed to serve as the foundation to the more advanced parametric feature-based CAD packages, such as Autodesk Inventor. After completing this text your students will be prepared to pass the AutoCAD Certified User Examination. Certified User Reference Guides located at the front of the book and in each chapter show where these performance tasks are covered.

Intended for Engineering Graphics and Technical Drawing courses at the undergraduate level. Using AutoCAD applications exclusively (no paper and pencil except Chapter 4) throughout the text, this book offers state-of-the-art coverage of the AutoCAD 2002 version of software, integrates helpful screen captures throughout, and includes many new and extensive design and sketching exercises. *Many exercise problems included throughout the text, allows students to work through real world applications and projects. *Includes a disk of sample drawing files from the text, allows students to manipulate and edit existing drawings relating to textbook activities. *Sections and exercises for design and projects also included, provides students with examples and exercises throughout each chapter. *Supplements written text with hundreds of illustrations that match the users computer screen exactly, provides visual reinforcement for users who are working at their own pace, and makes the text easy to follow. *Uses an easy-to-follow, step-by-step system of teaching, with complete chapter coverage on such areas as: *AutoCADs Draw and Modify toolbars and other commands needed to set up and start draw

Although the world of drawing has changed from graphite technology (i.e. conventional pencils, drawing paper, instruments and associated skills) to graphic technology (i.e. computer assisted drawing and drafting), the basics of the subject are equally important in either of the approaches. The teaching-learning process for engineering drawing calls for more imaginative thinking on

the part of the student than may be needed for learning other subjects and ingenious ways for the teacher for communicating with the students so as to develop a scheme that enables a student to translate 3D visualization into a 2D graphic representation on a drawing in an easy manner. Learning engineering drawing is thus learning a new language for effective communication and uniform understanding between people dealing with physical objects. The book also includes a chapter on AutoCAD which will serve as a good course material to students and teachers of engineering drawing. The language used for presentation has been simple, since the focus is the first year students just entering the engineering discipline. The CD enclosed with the book contains "Power point presentations on Conversion of Orthographic view to Isometric and Conversion of Pictorial view to Orthographic Projections" to facilitate students as well as the teachers.

Engineering Graphics with AutoCAD 2014 teaches technical drawing using AutoCAD 2014 as its drawing instrument, complying with ANSI standards. Taking a step-by-step approach, it encourages students to work at their own pace and uses sample problems and illustrations to guide them through the powerful features of this drawing program. Nearly 150 exercise problems provide instructors with a variety of assignment material and students with an opportunity to develop their creativity and problem-solving capabilities.

This work explains the principles and construction of Engineering Graphics. New conventions of designating the planes, ground lines, and projections on planes have been introduced to avoid confusion when a number of planes are involved. A new chapter on Intersection of Surfaces is included.

This book covers complete syllabus of Engineering Graphics and Design along with AUTOCAD catering requirements of B.Tech. in Engineering. The book is in easy to understand, simple English. It provides step-by-step solutions to problems along with suitable example and proper drawings. Using AutoCAD and Solid Work. All chapter make learning easy with unique features such as Summary, Solved examples and Practice Problems. Chapters have been organised to present data in concise format with suitable tables, diagrams, drawings and illustration.

Principles and Practices An Integrated Approach to Engineering Graphics and AutoCAD 2020 combines an introduction to AutoCAD 2020 with a comprehensive coverage of engineering graphics principles. By adopting this textbook, you will no longer need to adopt separate CAD and engineering graphics books for your course. Not only will this unified approach give your course a smoother flow, your students will also save money on their textbooks. What's more, the tutorial exercises in this text have been expanded to cover the performance tasks found on the AutoCAD 2020 Certified User Examination. The primary goal of Principles and Practices An Integrated Approach to Engineering Graphics and AutoCAD 2020 is to introduce the aspects of engineering graphics with the use of modern Computer Aided Design/Drafting software - AutoCAD 2020. This text is intended to be used as a training guide for students and professionals. The chapters in the text proceed in a pedagogical fashion to guide you from constructing basic shapes to making complete sets of engineering drawings. This text takes a hands-on, exercise-intensive approach to all the important concepts of Engineering Graphics, as well as in depth discussions of CAD techniques. This textbook contains a series of thirteen chapters, with detailed step-by-step tutorial-style lessons designed to introduce beginning CAD users to the graphic language used in all branches of technical industry. The CAD techniques and concepts discussed in the text are also designed to serve as the foundation to the more advanced parametric feature-based CAD packages, such as Autodesk Inventor. After completing this text your students will be prepared to pass the AutoCAD Certified User Examination. Certified User Reference Guides located at the front of the book and in each chapter show where these performance tasks are covered.

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