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Value-Focused Thinking - Ralph L. KEENEY 2009-06-30

This text argues that in decision-making a focus should be placed on the bottom-line objectives that give it its meaning. It states that through recognizing and articulating fundamental values, better decision opportunities can be identified, thereby creating better alternatives.

Fundamentals of Cost Accounting - William N. Lanen 2011

The authors have kept the text concise by focusing on the key concepts students need to master. Opening vignettes & 'in action' boxes show realistic applications of these concepts throughout. Comprehensive end-of-chapter problems provide students with all the practice they need to fully learn each concept.

China Transformed - R. Bin Wong 2018-10-18

The assumption still made in much social science research that Europe provides a universal model of development is fundamentally mistaken, according to R. Bin Wong. The solution is not, however, simply to reject Eurocentric norms but to build complementary perspectives, such as a Sinocentric one, to evaluate current understandings of European developments. A genuinely comparative perspective, he argues, will free China from wrong expectations and will allow those working on European problems to recognize the distinct character of Western development.

Numerical Methods: For Engineering and Science - Saumyen Guha 2010-12

Designed as a textbook for undergraduate and postgraduate students of engineering and science, Numerical Methods: For Engineering and Science is an attempt to explain the concepts and principles in such a way that the methods can be applied to any discipline.

Fuzzy Logic with Engineering Applications - Timothy J. Ross 2005-04-08

Fuzzy logic refers to a large subject dealing with a set of methods to characterize and quantify uncertainty in engineering systems that arise from ambiguity, imprecision, fuzziness, and lack of knowledge. Fuzzy logic is a reasoning system based on a foundation of fuzzy set theory, itself an extension of classical set theory, where set membership can be partial as opposed to all or none, as in the binary features of classical logic. Fuzzy logic is a relatively new discipline in which major advances have been made over the last decade or so with regard to theory and applications. Following on from the successful first edition, this fully updated new edition is therefore very timely and much anticipated. Concentration on the topics of fuzzy logic combined with an abundance of worked examples, chapter problems and commercial case studies is designed to help motivate a mainstream engineering audience, and the book is further strengthened by the inclusion of an online solutions manual as well as dedicated software codes. Senior undergraduate and postgraduate students in most engineering disciplines, academics and practicing engineers, plus some working in economics, control theory, operational research etc, will all find this a valuable addition to their bookshelves.

Man-made Catastrophes and Risk Information Concealment - Dmitry Chernov 2015-10-27

This book discusses the risks of information concealment in the context of major natural or industrial disasters - offering detailed descriptions and analyses of some 25 historical cases (Three Mile Island nuclear accident, Bhopal disaster, Challenger Space Shuttle explosion, Chernobyl nuclear disaster, Deepwater Horizon oil spill, Fukushima-Daiichi nuclear disaster, Enron's bankruptcy, Subprime mortgage crisis, Worldwide Spanish flu and SARS outbreaks, etc.) and applying these insights to selected on-going cases where such information concealment is suspected. Some successful examples of preventive anti-

concealment practice are also presented. In the book, the term 'concealment' is used to represent the two distinct behaviors uncovered in the investigations: (i) facts and information about an organization and its functioning being hidden from those that need them - here the concealment can be due to various factors, such as complexity and miscommunication, to name but two - and (ii) the conscious and deliberate action of keeping important information secret or misrepresenting it. This second meaning makes up a surprisingly important part of the evidence presented. Accordingly, emphasis has been put on this second aspect and the approach is more pragmatic than academic, remaining focused on evidence-based practical and useful factors. It raises awareness and provides valuable lessons for decision-makers, risk specialists and responsible citizens alike. This work is also intended as a fact-based reference work for future academic and scholarly investigations on the roots of the problem, in particular regarding any psychological or sociological modeling of human fallibility.

Numerical Analysis - Timothy Sauer 2013-07-26

Numerical Analysis, Second Edition, is a modern and readable text for the undergraduate audience. This book covers not only the standard topics but also some more advanced numerical methods being used by computational scientists and engineers-topics such as compression, forward and backward error analysis, and iterative methods of solving equations-all while maintaining a level of discussion appropriate for undergraduates. Each chapter contains a Reality Check, which is an extended exploration of relevant application areas that can launch individual or team projects. MATLAB(r) is used throughout to demonstrate and implement numerical methods. The Second Edition features many noteworthy improvements based on feedback from users, such as new coverage of Cholesky factorization, GMRES methods, and nonlinear PDEs.

Practical Radiotherapy Planning Fourth Edition - Ann Barrett 2009-06-26

Planning is a critical stage of radiotherapy. Careful consideration of the complex variables involved and critical assessment of the techniques available are fundamental to good and effective practice. First published in 1985, Practical Radiotherapy Planning has, over three editions, established itself as the popular choice for the trainee radiation oncologist and radiographer, providing the 'nuts and bolts' of planning in a practical and accessible manner. This fourth edition encompasses a wealth of new material, reflecting the radical change in the practice of radiotherapy in recent years. The information contained within the introductory chapters has been expanded and brought up to date, and a new chapter on patient management has been added. CT stimulators, MLC shieldings and dose profiles, principles of IMRT, and use of MRI, PET and ultrasound are all included, amongst other new developments in this field. The aim of the book remains unchanged. Complexity of treatment planning has increased greatly, but the fourth edition continues to emphasise underlying principles of treatment that can be applied for conventional, conformal and novel treatments, taking into account advances in imaging and treatment delivery.

The American Yawp - Joseph L. Locke 2019-01-22

"I too am not a bit tamed—I too am untranslatable / I sound my barbaric yawp over the roofs of the world."—Walt Whitman, "Song of Myself," Leaves of Grass The American Yawp is a free, online, collaboratively built American history textbook. Over 300 historians joined together to create the book they wanted for their own students—an accessible, synthetic narrative that reflects the best of recent historical scholarship and provides a jumping-off point for discussions in the U.S. history classroom and beyond. Long

before Whitman and long after, Americans have sung something collectively amid the deafening roar of their many individual voices. The Yawp highlights the dynamism and conflict inherent in the history of the United States, while also looking for the common threads that help us make sense of the past. Without losing sight of politics and power, The American Yawp incorporates transnational perspectives, integrates diverse voices, recovers narratives of resistance, and explores the complex process of cultural creation. It looks for America in crowded slave cabins, bustling markets, congested tenements, and marbled halls. It navigates between maternity wards, prisons, streets, bars, and boardrooms. The fully peer-reviewed edition of The American Yawp will be available in two print volumes designed for the U.S. history survey. Volume I begins with the indigenous people who called the Americas home before chronicling the collision of Native Americans, Europeans, and Africans. The American Yawp traces the development of colonial society in the context of the larger Atlantic World and investigates the origins and ruptures of slavery, the American Revolution, and the new nation's development and rebirth through the Civil War and Reconstruction. Rather than asserting a fixed narrative of American progress, The American Yawp gives students a starting point for asking their own questions about how the past informs the problems and opportunities that we confront today.

WDM Systems and Networks - Neophytos (Neo) Antoniadis 2011-12-08

Modeling, Simulation, Design and Engineering of WDM Systems and Networks provides readers with the basic skills, concepts, and design techniques used to begin design and engineering of optical communication systems and networks at various layers. The latest semi-analytical system simulation techniques are applied to optical WDM systems and networks, and a review of the various current areas of optical communications is presented. Simulation is mixed with experimental verification and engineering to present the industry as well as state-of-the-art research. This contributed volume is divided into three parts, accommodating different readers interested in various types of networks and applications. The first part of the book presents modeling approaches and simulation tools mainly for the physical layer (including transmission effects, devices, subsystems, and systems), whereas the second part features more engineering/design issues for various types of optical systems including ULH, access, and in-building systems. The third part of the book covers networking issues related to the design of provisioning and survivability algorithms for impairment-aware and multi-domain networks. Intended for professional scientists, company engineers, and university researchers, the text demonstrates the effectiveness of computer-aided design when it comes to network engineering and prototyping.

U.S. Marines In Vietnam: Fighting The North Vietnamese, 1967 - Maj. Gary L. Telfer 2016-08-09

This is the fourth volume in an operational and chronological series covering the U.S. Marine Corps' participation in the Vietnam War. This volume details the change in focus of the III Marine Amphibious Force (III MAF), which fought in South Vietnam's northernmost corps area, I Corps. This volume, like its predecessors, concentrates on the ground war in I Corps and III MAF's perspective of the Vietnam War as an entity. It also covers the Marine Corps participation in the advisory effort, the operations of the two Special Landing Forces of the U.S. Navy's Seventh Fleet, and the services of Marines with the staff of the U.S. Military Assistance Command, Vietnam. There are additional chapters on supporting arms and logistics, and a discussion of the Marine role in Vietnam in relation to the overall American effort.

Student Solutions Manual for Numerical Analysis - Timothy Sauer 2012-03

Numerical Analysis - Richard L. Burden 2010-08-09

This well-respected text gives an introduction to the theory and application of modern numerical approximation techniques for students taking a one- or two-semester course in numerical analysis. With an accessible treatment that only requires a calculus prerequisite, Burden and Faires explain how, why, and when approximation techniques can be expected to work, and why, in some situations, they fail. A wealth of examples and exercises develop students' intuition, and demonstrate the subject's practical applications to important everyday problems in math, computing, engineering, and physical science disciplines. The first book of its kind built from the ground up to serve a diverse undergraduate audience, three decades later Burden and Faires remains the definitive introduction to a vital and practical subject. Important Notice: Media content referenced within the product description or the product text may not be available in the

ebook version.

Elementary Numerical Analysis (3Rd Ed.) - Atkinson 2009-07

Offering a clear, precise, and accessible presentation, complete with MATLAB programs, this new Third Edition of Elementary Numerical Analysis gives students the support they need to master basic numerical analysis and scientific computing. Now updated and revised, this significant revision features reorganized and rewritten content, as well as some new additional examples and problems. The text introduces core areas of numerical analysis and scientific computing along with basic themes of numerical analysis such as the approximation of problems by simpler methods, the construction of algorithms, iteration methods, error analysis, stability, asymptotic error formulas, and the effects of machine arithmetic. · Taylor Polynomials · Error and Computer Arithmetic · Rootfinding · Interpolation and Approximation · Numerical Integration and Differentiation · Solution of Systems of Linear Equations · Numerical Linear Algebra: Advanced Topics · Ordinary Differential Equations · Finite Difference Method for PDEs

R and MATLAB - David E. Hiebeler 2018-09-03

The First Book to Explain How a User of R or MATLAB Can Benefit from the Other In today's increasingly interdisciplinary world, R and MATLAB® users from different backgrounds must often work together and share code. R and MATLAB® is designed for users who already know R or MATLAB and now need to learn the other platform. The book makes the transition from one platform to the other as quick and painless as possible. Enables R and MATLAB Users to Easily Collaborate and Share Code The author covers essential tasks, such as working with matrices and vectors, writing functions and other programming concepts, graphics, numerical computing, and file input/output. He highlights important differences between the two platforms and explores common mistakes that are easy to make when transitioning from one platform to the other.

Data Structures Using C++ - D. S. Malik 2009-07-31

Now in its second edition, D.S. Malik brings his proven approach to C++ programming to the CS2 course. Clearly written with the student in mind, this text focuses on Data Structures and includes advanced topics in C++ such as Linked Lists and the Standard Template Library (STL). The text features abundant visual diagrams, examples, and extended Programming Examples, all of which serve to illuminate difficult concepts. Complete programming code and clear display of syntax, explanation, and example are used throughout the text, and each chapter concludes with a robust exercise set. Important Notice: Media content referenced within the product description or the product text may not be available in the ebook version.

Quantum Atom Optics - Tim Byrnes 2021-08-05

The rapid development of quantum technologies has driven a revolution in related research areas such as quantum computation and communication, and quantum materials. The first prototypes of functional quantum devices are beginning to appear, frequently created using ensembles of atoms, which allow the observation of sensitive, quantum effects, and have important applications in quantum simulation and matter wave interferometry. This modern text offers a self-contained introduction to the fundamentals of quantum atom optics and atomic many-body matter wave systems. Assuming a familiarity with undergraduate quantum mechanics, this book will be accessible for graduate students and early career researchers moving into this important new field. A detailed description of the underlying theory of quantum atom optics is given, before development of the key, quantum, technological applications, such as atom interferometry, quantum simulation, quantum metrology, and quantum computing.

Differential Equations - Paul Blanchard 2012-07-25

Incorporating an innovative modeling approach, this book for a one-semester differential equations course emphasizes conceptual understanding to help users relate information taught in the classroom to real-world experiences. Certain models reappear throughout the book as running themes to synthesize different concepts from multiple angles, and a dynamical systems focus emphasizes predicting the long-term behavior of these recurring models. Users will discover how to identify and harness the mathematics they will use in their careers, and apply it effectively outside the classroom. Important Notice: Media content referenced within the product description or the product text may not be available in the ebook version.

Innovation, Internationalization and Entrepreneurship - Renata Korsakienė 2021-08-17

Over the past years, businesses have had to tackle the issues caused by numerous forces from political, technological and societal environment. The changes in the global market and increasing uncertainty require us to focus on disruptive innovations and to investigate this phenomenon from different perspectives. The benefits of innovations are related to lower costs, improved efficiency, reduced risk, and better response to the customers' needs due to new products, services or processes. On the other hand, new business models expose various risks, such as cyber risks, operational risks, regulatory risks, and others. Therefore, we believe that the entrepreneurial behavior and global mindset of decision-makers significantly contribute to the development of innovations, which benefit by closing the prevailing gap between developed and developing countries. Thus, this Special Issue contributes to closing the research gap in the literature by providing a platform for a scientific debate on innovation, internationalization and entrepreneurship, which would facilitate improving the resilience of businesses to future disruptions.

Analysis, Synthesis and Design of Chemical Processes - Richard Turton 2008-12-24

The Leading Integrated Chemical Process Design Guide: Now with New Problems, New Projects, and More More than ever, effective design is the focal point of sound chemical engineering. Analysis, Synthesis, and Design of Chemical Processes, Third Edition, presents design as a creative process that integrates both the big picture and the small details—and knows which to stress when, and why. Realistic from start to finish, this book moves readers beyond classroom exercises into open-ended, real-world process problem solving. The authors introduce integrated techniques for every facet of the discipline, from finance to operations, new plant design to existing process optimization. This fully updated Third Edition presents entirely new problems at the end of every chapter. It also adds extensive coverage of batch process design, including realistic examples of equipment sizing for batch sequencing; batch scheduling for multi-product plants; improving production via intermediate storage and parallel equipment; and new optimization techniques specifically for batch processes. Coverage includes Conceptualizing and analyzing chemical processes: flow diagrams, tracing, process conditions, and more Chemical process economics: analyzing capital and manufacturing costs, and predicting or assessing profitability Synthesizing and optimizing chemical processing: experience-based principles, BFD/PFD, simulations, and more Analyzing process performance via I/O models, performance curves, and other tools Process troubleshooting and “debottlenecking” Chemical engineering design and society: ethics, professionalism, health, safety, and new “green engineering” techniques Participating successfully in chemical engineering design teams Analysis, Synthesis, and Design of Chemical Processes, Third Edition, draws on nearly 35 years of innovative chemical engineering instruction at West Virginia University. It includes suggested curricula for both single-semester and year-long design courses; case studies and design projects with practical applications; and appendixes with current equipment cost data and preliminary design information for eleven chemical processes—including seven brand new to this edition.

Handbook of Image and Video Processing - Alan C. Bovik 2010-07-21

55% new material in the latest edition of this “must-have for students and practitioners of image & video processing! This Handbook is intended to serve as the basic reference point on image and video processing, in the field, in the research laboratory, and in the classroom. Each chapter has been written by carefully selected, distinguished experts specializing in that topic and carefully reviewed by the Editor, Al Bovik, ensuring that the greatest depth of understanding be communicated to the reader. Coverage includes introductory, intermediate and advanced topics and as such, this book serves equally well as classroom textbook as reference resource. • Provides practicing engineers and students with a highly accessible resource for learning and using image/video processing theory and algorithms • Includes a new chapter on image processing education, which should prove invaluable for those developing or modifying their curricula • Covers the various image and video processing standards that exist and are emerging, driving today's explosive industry • Offers an understanding of what images are, how they are modeled, and gives an introduction to how they are perceived • Introduces the necessary, practical background to allow engineering students to acquire and process their own digital image or video data • Culminates with a diverse set of applications chapters, covered in sufficient depth to serve as extensible models to the reader's own potential applications About the Editor... Al Bovik is the Cullen Trust for Higher Education Endowed Professor at The University of Texas at Austin, where he is the Director of the Laboratory for

Image and Video Engineering (LIVE). He has published over 400 technical articles in the general area of image and video processing and holds two U.S. patents. Dr. Bovik was Distinguished Lecturer of the IEEE Signal Processing Society (2000), received the IEEE Signal Processing Society Meritorious Service Award (1998), the IEEE Third Millennium Medal (2000), and twice was a two-time Honorable Mention winner of the international Pattern Recognition Society Award. He is a Fellow of the IEEE, was Editor-in-Chief, of the IEEE Transactions on Image Processing (1996-2002), has served on and continues to serve on many other professional boards and panels, and was the Founding General Chairman of the IEEE International Conference on Image Processing which was held in Austin, Texas in 1994. * No other resource for image and video processing contains the same breadth of up-to-date coverage * Each chapter written by one or several of the top experts working in that area * Includes all essential mathematics, techniques, and algorithms for every type of image and video processing used by electrical engineers, computer scientists, internet developers, bioengineers, and scientists in various, image-intensive disciplines

The Ultimate Sniper - Major John Plaster 2006-01-01

Through revised text, new photos, specialised illustrations, updated charts and additional information sidebars, The Ultimate Sniper once again thoroughly details the three great skill areas of sniping; marksmanship, fieldcraft and tactics.

Principles of Fluorescence Spectroscopy - Joseph R. Lakowicz 2013-04-17

In the second edition of Principles I have attempted to maintain the emphasis on basics, while updating the examples to include more recent results from the literature. There is a new chapter providing an overview of extrinsic fluorophores. The discussion of timeresolved measurements has been expanded to two chapters. Quenching has also been expanded in two chapters. Energy transfer and anisotropy have each been expanded to three chapters. There is also a new chapter on fluorescence sensing. To enhance the usefulness of this book as a textbook, most chapters are followed by a set of problems. Sections which describe advanced topics are indicated as such, to allow these sections to be skipped in an introduction course. Glossaries are provided for commonly used acronyms and mathematical symbols. For those wanting additional information, the final appendix contains a list of recommended books which expand on various specialized topics.' from the author's Preface

Streamflow depletion by wells - Paul M. Barlow 2012

Fundamentals of Electric Propulsion - Dan M. Goebel 2008-12-22

Throughout most of the twentieth century, electric propulsion was considered the technology of the future. Now, the future has arrived. This important new book explains the fundamentals of electric propulsion for spacecraft and describes in detail the physics and characteristics of the two major electric thrusters in use today, ion and Hall thrusters. The authors provide an introduction to plasma physics in order to allow readers to understand the models and derivations used in determining electric thruster performance. They then go on to present detailed explanations of: Thruster principles Ion thruster plasma generators and accelerator grids Hollow cathodes Hall thrusters Ion and Hall thruster plumes Flight ion and Hall thrusters Based largely on research and development performed at the Jet Propulsion Laboratory (JPL) and complemented with scores of tables, figures, homework problems, and references, Fundamentals of Electric Propulsion: Ion and Hall Thrusters is an indispensable textbook for advanced undergraduate and graduate students who are preparing to enter the aerospace industry. It also serves as an equally valuable resource for professional engineers already at work in the field.

Advances in Dryland Farming in the Inland Pacific Northwest - Georgine Yorgey 2017-06-15

The Pacific Northwest is an important wheat production region. In 2015, the National Agricultural Statistics Service indicated that Washington, Idaho, and Oregon harvested more than 240 million bushels of wheat, worth an estimated \$1.3 billion. The major areas of production in the inland Pacific Northwest include three major land resource areas with distinctive geologic features and soils as defined by the US Department of Agriculture: the Columbia Basin, the Columbia Plateau, and the Palouse and Nez Perce Prairies, all of which are within the Northwestern Wheat and Range Region. It also includes a small portion of dryland cropping in the North Rocky Mountains major land resource area, adjacent to the eastern edge of the Palouse and Nez Perce Prairies. In the dryland areas, which are the focus of this book, wheat is

grown in rotation with crop fallow and much smaller acreages of other small grains, legumes, and alternative crops. In light of ongoing and new challenges being faced by farmers in the region it is an opportune time to synthesize research-based advances in knowledge to support farmer decision-making and improve the long-term productive capacity of farmland in the region. This book should be viewed as a resource that launches further inquiry rather than an end point.

Numerical Methods - J. Douglas Faires 1998

This text emphasizes the intelligent application of approximation techniques to the type of problems that commonly occur in engineering and the physical sciences. The authors provide a sophisticated introduction to various appropriate approximation techniques; they show students why the methods work, what type of errors to expect, and when an application might lead to difficulties; and they provide information about the availability of high-quality software for numerical approximation routines. The techniques covered in this text are essentially the same as those covered in the Sixth Edition of these authors' top-selling Numerical Analysis text, but the emphasis is much different. In Numerical Methods, Second Edition, full mathematical justifications are provided only if they are concise and add to the understanding of the methods. The emphasis is placed on describing each technique from an implementation standpoint, and on convincing the student that the method is reasonable both mathematically and computationally.

Student Solutions Manual and Study Guide for Numerical Analysis - Richard L. Burden 2004-12-01

The Student Solutions Manual contains worked-out solutions to many of the problems. It also illustrates the calls required for the programs using the algorithms in the text, which is especially useful for those with limited programming experience.

A Friendly Introduction to Numerical Analysis - Brian Bradie 2006

This reader-friendly introduction to the fundamental concepts and techniques of numerical analysis/numerical methods develops concepts and techniques in a clear, concise, easy-to-read manner, followed by fully-worked examples. Application problems drawn from the literature of many different fields prepares readers to use the techniques covered to solve a wide variety of practical problems. Rootfinding. Systems of Equations. Eigenvalues and Eigenvectors. Interpolation and Curve Fitting. Numerical Differentiation and Integration. Numerical Methods for Initial Value Problems of Ordinary Differential Equations. Second-Order One-Dimensional Two-Point Boundary Value Problems. Finite Difference Method for Elliptic Partial Differential Equations. Finite Difference Method for Parabolic Partial Differential Equations. Finite Difference Method for Hyperbolic Partial Differential Equations and the Convection-Diffusion Equation. For anyone interested in numerical analysis/methods and their applications in many fields

Applied Stochastic Differential Equations - Simo Särkkä 2019-05-02

With this hands-on introduction readers will learn what SDEs are all about and how they should use them in practice.

The 71F Advantage - National Defense University Press 2010-09-01

Includes a foreword by Major General David A. Rubenstein. From the editor: "71F, or "71 Foxtrot," is the AOC (area of concentration) code assigned by the U.S. Army to the specialty of Research Psychology. Qualifying as an Army research psychologist requires, first of all, a Ph.D. from a research (not clinical) intensive graduate psychology program. Due to their advanced education, research psychologists receive a direct commission as Army officers in the Medical Service Corps at the rank of captain. In terms of numbers, the 71F AOC is a small one, with only 25 to 30 officers serving in any given year. However, the 71F impact is much bigger than this small cadre suggests. Army research psychologists apply their extensive training and expertise in the science of psychology and social behavior toward understanding, preserving, and enhancing the health, well being, morale, and performance of Soldiers and military families. As is clear throughout the pages of this book, they do this in many ways and in many areas, but always with a scientific approach. This is the 71F advantage: applying the science of psychology to understand the human dimension, and developing programs, policies, and products to benefit the person in military operations. This book grew out of the April 2008 biennial conference of U.S. Army Research Psychologists, held in Bethesda, Maryland. This meeting was to be my last as Consultant to the Surgeon General for Research Psychology, and I thought it would be a good idea to publish proceedings, which had

not been done before. As Consultant, I'd often wished for such a document to help explain to people what it is that Army Research Psychologists "do for a living." In addition to our core group of 71Fs, at the Bethesda 2008 meeting we had several brand-new members, and a number of distinguished retirees, the "grey-beards" of the 71F clan. Together with longtime 71F colleagues Ross Pastel and Mark Vaitkus, I also saw an unusual opportunity to capture some of the history of the Army Research Psychology specialty while providing a representative sample of current 71F research and activities. It seemed to us especially important to do this at a time when the operational demands on the Army and the total force were reaching unprecedented levels, with no sign of easing, and with the Army in turn relying more heavily on research psychology to inform its programs for protecting the health, well being, and performance of Soldiers and their families."

Numerical Analysis - David Kincaid 2009

This book introduces students with diverse backgrounds to various types of mathematical analysis that are commonly needed in scientific computing. The subject of numerical analysis is treated from a mathematical point of view, offering a complete analysis of methods for scientific computing with appropriate motivations and careful proofs. In an engaging and informal style, the authors demonstrate that many computational procedures and intriguing questions of computer science arise from theorems and proofs. Algorithms are presented in pseudocode, so that students can immediately write computer programs in standard languages or use interactive mathematical software packages. This book occasionally touches upon more advanced topics that are not usually contained in standard textbooks at this level.

Human Stem Cell Manual - Suzanne E. Peterson 2012-08-27

This reader-friendly manual provides a practical "hands on" guide to the culture of human embryonic and somatic stem cells. By presenting methods for embryonic and adult lines side-by-side, the authors lay out an elegant and unique path to understanding the science of stem cell practice. The authors begin with a broad-based introduction to the field, and also review legal and regulatory issues and patents. Each experimental strategy is presented with an historical introduction, detailed method, discussion of alternative methods, and common pitfalls. This lab guide for researchers also serves as a textbook for undergraduate and graduate students in laboratory courses. • Offers a comprehensive introduction to stem cell biology and culture for medical and biology researchers investigating diagnostics and treatments for various diseases • Presents a historical introduction, discussion of alternative methods, and common pitfalls for basic and advanced experimental strategies • Includes new chapters devoted to iPS cells and other alternative sources for generating human stem cells written by the scientists who made these breakthroughs

Marijuana and the Cannabinoids - Mahmoud A. ElSohly 2007-11-15

Although primarily used today as one of the most prevalent illicit leisure drugs, the use of Cannabis sativa L., commonly referred to as marijuana, for medicinal purposes has been reported for more than 5000 years. Marijuana use has been shown to create numerous health problems, and, consequently, the expanding use beyond medical purposes into recreational use (abuse) resulted in control of the drug through international treaties. Much research has been carried out over the past few decades following the identification of the chemical structure of THC in 1964. The purpose of Marijuana and the Cannabinoids is to present in a single volume the comprehensive knowledge and experience of renowned researchers and scientists. Each chapter is written independently by an expert in his/her field of endeavor, ranging from the botany, the constituents, the chemistry and pharmacokinetics, the effects and consequences of illicit use on the human body, to the therapeutic potential of the cannabinoids.

The Administrative Medical Assistant - Mary E. Kinn 1993

Now in its 3rd Edition, this popular text gives office personnel just what they need to perform all of their nonclinical tasks with greater skill and efficiency. You get the background to better understand your role and responsibilities... as well as current, step-by-step advice on billing, scheduling, making travel arrangements, ordering supplies - any duty from receptionist to manager you might have in your doctor's office. Includes the latest on... using computers in medical practice; handling medicolegal issues; communicating more effectively with physicians patients, and peers; and transcribing reports... everything you need to be good at your job.

Design Manual - 1980

Facilitating Interdisciplinary Research - Institute of Medicine 2005-04-04

Facilitating Interdisciplinary Research examines current interdisciplinary research efforts and recommends ways to stimulate and support such research. Advances in science and engineering increasingly require the collaboration of scholars from various fields. This shift is driven by the need to address complex problems that cut across traditional disciplines, and the capacity of new technologies to both transform existing disciplines and generate new ones. At the same time, however, interdisciplinary research can be impeded by policies on hiring, promotion, tenure, proposal review, and resource allocation that favor traditional disciplines. This report identifies steps that researchers, teachers, students, institutions, funding organizations, and disciplinary societies can take to more effectively conduct, facilitate, and evaluate interdisciplinary research programs and projects. Throughout the report key concepts are illustrated with case studies and results of the committee's surveys of individual researchers and university provosts.

Dialysis Therapy - Allen R. Nissenson 1993

A comprehensive reference covering all aspects of the clinical management of adult and child dialysis patients. This edition includes seven new chapters including one on EPO use in dialysis patients and one on the HIV positive patient.

Onsite Wastewater Treatment Systems Manual - 2002

"This manual contains overview information on treatment technologies, installation practices, and past performance."--Intro.

Numerical Methods (As Per Anna University) - Satteluri R. K. Iyengar 2009

About the Book: This comprehensive textbook covers material for one semester course on Numerical Methods (MA 1251) for B.E./ B. Tech. students of Anna University. The emphasis in the book is on the presentation of fundamentals and theoretical concepts in an intelligible and easy to understand manner. The book is written as a textbook rather than as a problem/guide book. The textbook offers a logical presentation of both the theory and techniques for problem solving to motivate the students in the study and application of Numerical Methods. Examples and Problems in Exercises are used to explain.