

2011 Memorandum Communication N4 Question Paper

Through the Refugee Act of 1980, the United States offers the prospect of safety to people who flee to America to escape rape, torture, and even death in their native countries. In order to be granted asylum, however, an applicant must prove to an asylum officer or immigration judge that she has a well-founded fear of persecution in her homeland. The chance of winning asylum should have little if anything to do with the personality of the official to whom a case is randomly assigned, but in a ground-breaking and shocking study, Jaya Ramji-Nogales, Andrew I. Schoenholtz, and Philip G. Schrag learned that life-or-death asylum decisions are too frequently influenced by random factors relating to the decision makers. In many cases, the most important moment in an asylum case is the instant in which a clerk randomly assigns the application to an adjudicator. The system, in its current state, is like a game of chance. Refugee Roulette is the first analysis of decisions at all four levels of the asylum adjudication process: the Department of Homeland Security, the immigration courts, the Board of Immigration Appeals, and the United States Courts of Appeals. The data reveal tremendous disparities in asylum approval rates, even when different adjudicators in the same office each considered large numbers of applications from nationals of the same country. After providing a thorough empirical analysis, the authors make recommendations for future reform. Original essays by eight scholars and policy makers then discuss the authors' research and recommendations Contributors: Bruce Einhorn, Steven Legomsky, Audrey MacKlin, M. Margaret McKeown, Allegra McLeod, Carrie Menkel-Meadow, Margaret Taylor, and Robert Thomas.

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Every day in the United States, over two million men, women, and children step onto an aircraft and place their lives in the hands of strangers. As anyone who has ever flown knows, modern flight offers unparalleled advantages in travel and freedom, but it also comes with grave responsibility and risk. For the first time in its history, the Federal Aviation Administration has put together a set of easy-to-understand guidelines and principles that will help pilots of any skill level minimize risk and maximize safety while in the air. The Risk Management Handbook offers full-color diagrams and illustrations to help students and pilots visualize the science of flight, while providing straightforward information on decision-making and the risk-management process.

Power electronics, which is a rapidly growing area in terms of research and applications, uses modern electronics technology to convert electric power from one form to another, such as ac-dc, dc-dc, dc-ac, and ac-ac with a variable output magnitude and frequency. Power electronics has many applications in our every day life such as air-conditioners, electric cars, sub-way trains, motor drives, renewable energy sources and power supplies for computers. This book covers all aspects of switching devices, converter circuit topologies, control techniques, analytical methods and some examples of their applications.
* 25% new content
* Reorganized and revised into 8 sections comprising 43 chapters
* Coverage of numerous applications, including uninterruptable power supplies and automotive electrical systems
* New content in power generation and distribution, including solar power, fuel cells, wind turbines, and flexible transmission

Anticipating and Avoiding the Pitfalls That Can Sink a Startup

WIPO Intellectual Property Handbook

Cyber Criminology

Market and Competition Authorities

Fundamentals of Industrial Electronics

A Global Perspective

The Founder's Dilemmas examines how early decisions by entrepreneurs can make or break a startup and its team. Drawing on a decade of research, including quantitative data on almost ten thousand founders as well as inside stories of founders like Evan Williams of Twitter and Tim Westergren of Pandora, Noam Wasserman reveals the common pitfalls founders face and how to avoid them.

Your plain-English guide to navigating a financial accounting course Despite the economic landscape and job market, demand for accountants remains strong, and accountants will continue to see high demand for their services as the economy rebounds and businesses grow. Additionally, one of the effects of the economic downturn is a greater emphasis on accountability, transparency, and controls in financial reporting. With easy-to-understand explanations and real-life examples, Financial Accounting For Dummies provides students who are studying business, finance, and accounting with the basic concepts, terminology, and methods to interpret, analyze, and evaluate actual corporate financial statements. Covers traditional introductory financial accounting course material Explores concepts accountants and other business professionals use to prepare reports Details mergers and acquisitions purchase and pooling, free cash flow, and financial statement analysis whether you're a student on your way to earning a bachelor's degree, MBA, or MAcc, Financial Accounting For Dummies gives you a wealth of information to grasp the subject and ace the course.

Victimization through the Internet is becoming more prevalent as cyber criminals have developed more effective ways to remain anonymous. And as more personal information than ever is stored on networked computers, even the occasional or non-user is at risk. A collection of contributions from worldwide experts and emerging researchers, Cyber Criminology: Exploring Internet Crimes and Criminal Behavior explores today's interface of computer science, criminology, and criminology. Topics include: The growing menace of cyber crime in Nigeria Internet gambling and digital piracy Sexual addiction on the Internet, child pornography, and online exploitation of children Terrorist use of the Internet Cyber stalking and cyber bullying The victimization of women on social networking websites Malware victimization and hacking The Islamic world in cyberspace and the propagation of Islamic ideology via the Internet Human rights concerns that the digital age has created Approaching the topic from a social science perspective, the book explores methods for determining the causes of computer crime victimization by examining an individual's lifestyle patterns. It also publishes the findings of a study conducted on college students about online victimization. Advances in information and communications technologies have created a range of new crime problems that do not exist two decades ago. Opportunities for various criminal activities to pervade the Internet have led to the growth and development of cyber criminology as a distinct discipline within the criminology framework. This volume explores all aspects of this nascent field and provides a window on the future of Internet crimes and theories behind their origins. K. Jaishankar was the General Chair of the First International Conference of the South Asian Society of Criminology and Victimology (SASCV), held January 15-17, 2011 at the Hotel Jaipur Greens in Jaipur, Rajasthan, India.

Following the terrorist attacks of September 11, 2001, the Central Intelligence Agency embarked on a highly classified program of secret detention and extraordinary rendition of terrorist suspects. The program was designed to place detainee interrogations beyond the reach of law. Suspected terrorists were seized and secretly flown across national borders to be interrogated by foreign governments that used torture, or by the CIA itself in clandestine "black sites" using torture techniques. This report is the most comprehensive account yet assembled of the human rights abuses associated with secret detention and extraordinary rendition operations. It details for the first time the number of known victims, and lists the foreign governments that participated in these operations. It shows that responsibility for the abuses lies not only with the United States but with dozens of foreign governments that were complicit. More than 10 years after the 2001 attacks, this report makes it unequivocally clear that the time has come for the United States and its partners to definitively repudiate these illegal practices and secure accountability for the associated human rights abuses.

Rapid Review Biochemistry E-Book

Self-Study Teacher Research

Financial Accounting For Dummies

Exploring Internet Crimes and Criminal Behavior

Good Agency Principles

Probability, Statistics, and Stochastic Processes

Modern Computer Arithmetic focuses on arbitrary-precision algorithms for efficiently performing arithmetic operations such as addition, multiplication and division, and their connections to topics such as modular arithmetic, greatest common divisors, the Fast Fourier Transform (FFT), and the computation of elementary and special functions. Brent and Zimmermann present algorithms that are ready to implement in your favorite language, while keeping a high-level description and avoiding too low-level or machine-dependent details. The book is intended for anyone interested in the design and implementation of efficient high-precision algorithms for computer arithmetic, and more generally efficient multiple-precision numerical algorithms. It may also be used in a graduate course in mathematics or computer science, for which exercises are included. These vary considerably in difficulty, from easy to small research projects, and expand on topics discussed in the text. Solutions to selected exercises are available from the authors.

The first half of the book focuses on broader questions and principles taken from psychology per se, and the second half focuses on somewhat more practical issues of teaching. All parts of the book draw on research, theory, and practical wisdom wherever appropriate. Chapter 2 is about learning theory, and Chapter 3 is about development. Chapter 4 is about several forms of student diversity, and Chapter 5 is about students with disabilities. Chapter 6 is about motivation. Following these somewhat more basic psychological chapters, we turn to several lasting challenges of classroom life—challenges that seem to be an intrinsic part of the job. Chapter 7 offers ideas about classroom management; Chapter 8, ideas about communicating with students; Chapter 9, about ways to assist students' complex forms of thinking; and Chapter 10, about planning instruction systematically. The book closes with two chapters about assessment of learning.

This entry revised second edition of Engineering a Compiler is full of technical updates and new material covering the latest developments in compiler technology. In this comprehensive text you will learn important techniques for constructing a modern compiler. Leading educators and researchers Keith Cooper and Linda Torczon combine basic principles with pragmatic insights from their experience building state-of-the-art compilers. They will help you fully understand important techniques such as compilation of imperative and object-oriented languages, construction of static single assignment forms, instruction scheduling, and graph-coloring register allocation. In-depth treatment of algorithms and techniques used in the front end of a modern compiler Focus on code optimization and code generation, the primary areas of recent research and development Improvements in presentation including conceptual overviews for each chapter, summaries and review questions for sections, and prominent placement of definitions for new terms Examples drawn from several different programming languages

Introduction to Probability Models, Tenth Edition, provides an introduction to elementary probability theory and stochastic processes. There are two approaches to the study of probability theory. One is heuristic and nonte rigorous, and attempts to develop in students an intuitive feel for the subject that enables him or her to think probabilistically. The other approach attempts a rigorous development of probability by using the tools of measure theory. The first approach is employed in this text. The book begins by introducing basic concepts of probability theory, such as the random variable, conditional probability, and conditional expectation. This is followed by discussions of stochastic processes, including Markov chains and Poisson processes. The remaining chapters cover queuing, reliability theory, Brownian motion, and simulation. Many examples are worked out throughout the text, along with exercises to be solved by students. This book will be particularly useful to those interested in learning how probability theory can be applied to the study of phenomena in fields such as engineering, computer science, management science, the physical and social sciences, and operations research. Ideally, this text would be used in a one-year course in probability models, or a one-semester course in introductory probability theory or a course in elementary stochastic processes. New to this Edition: 65% new chapter material including coverage of finite capacity queues, insurance risk models and Markov chains Contains compulsory material for new Exam 3 of the Society of Actuaries containing several sections in the new exams Updated data, and a list of commonly used notations and equations, a robust ancillary package, including a ISM, SSM, and test bank Includes SPSS PASW Modeler and SAS JMP software packages which are widely used in the field Hallmark features: Superior writing style

Excellent exercises and examples covering the wide breadth of coverage of probability topics Real-world applications in engineering, science, business and economics

Technology Readiness Assessment Guide: Best Practices for Evaluating the Readiness of Technology for Use in Acquisition Programs and Projects (703694)

Mathematical Statistics with Applications in R

A Course of Lectures

A Handbook

Wireless Communications

Toyota Production System

This newly expanded and updated second edition of the best-selling classic continues to take the "mystery" out of designing algorithms, and analyzing their efficacy and efficiency. Expanding on the first edition, the book now serves as the primary textbook of choice for algorithm design courses while maintaining its status as the premier practical reference guide to algorithms for programmers, researchers, and students. The reader-friendly Algorithm Design Manual provides straightforward access to combinatorial algorithms technology, stressing design over analysis. The first part, Techniques, provides accessible instruction on methods for designing and analyzing computer algorithms. The second part, Resources, is intended for browsing and reference, and comprises the catalog of algorithmic resources, implementation and an extensive bibliography. NEW to the second edition:
• Doubles the tutorial material and exercises over the first edition
• Provides full online support for lecturers, and a completely updated and improved website component with lecture slides, audio and video
• Contains a unique catalog identifying the 75 algorithmic problems that arise most often in practice, leading the reader down the right path to solve them
• Includes several NEW "war stories" relating experiences from real-world applications
• Provides up-to-date links leading to the very best algorithm implementations available in C, C++, and Java

In Software Abstractions Daniel Jackson introduces an approach to software design that draws on traditional formal methods but exploits automated tools to find flaws as early as possible. This approach -- which Jackson calls "lightweight formal methods" or "agile modeling" -- takes from formal specification the idea of a precise and expressive notation based on a tiny core of simple and robust concepts but replaces conventional analysis based on theorem proving with a fully automated analysis that gives designers immediate feedback. Jackson has developed Alloy, a language that captures the essence of software abstractions simply and succinctly, using a minimal toolkit of mathematical notions. This revised edition updates the text, examples, and appendices to be fully compatible with Alloy 4.

The Industrial Electronics Handbook, Second Edition combines traditional and newer, more specialized knowledge that will help industrial electronics engineers develop practical solutions for the design and implementation of high-power applications. Embracing the broad technological scope of the field, this collection explores fundamental areas, including analog and digital circuits, electronics, electromagnetic machines, signal processing, and industrial control and communications systems. It also facilitates the use of intelligent systems—such as neural networks, fuzzy systems, and evolutionary methods—in terms of a hierarchical structure that makes factory control and supervision more efficient by addressing the needs of all production components. Enhancing its value, this fully updated collection presents research and global trends as published in the IEEE Transactions on Industrial Electronics Journal, one of the largest and most respected publications in the field. Fundamentals of Industrial Electronics covers the essential areas that form the basis for the field. This volume presents the basic knowledge that can be applied to the other sections of the handbook. Topics covered include: Circuits and signals Devices Digital circuits Digital and analog signal processing Electromagnetics Other volumes in the set: Power Electronics and Motor Drives Control and Mechatronics Industrial Communication Systems Intelligent Systems

The Just-in-time (JIT) manufacturing system is an internal system in use by its founder, Toyota Motor Corporation, but it has taken on a new look. Toyota Production System, Second Edition systematically describes the changes that have occurred to the most efficient production system in use today. Since the publication of the first edition of this book in 1983, Toyota has integrated JIT with computer integrated manufacturing technology and a strategic information system. The JIT goal of producing the necessary items in the necessary quantity at the necessary time is an internal driver of production and operations management. The addition of computer integrated technology (including expert systems by artificial intelligence) and information systems technology serve to further reduce costs, increase quality, and improve lead time. The new Toyota production system considers how to adapt production schedules to the marketplace while satisfying the goals of low cost, high quality, and timely delivery. The first edition of this book, Toyota Production System, published in 1983, is the basis for this book. It was translated into many languages including Spanish, Russian, Italian, Japanese, etc., and has played a definite role in inspiring production management systems throughout the world.

The SAGE Encyclopedia of Qualitative Research Methods

Disparities in Asylum Adjudication and Proposals for Reform

Interpreting Qualitative Data

Trustworthy Internet

Policy, Law and Use

Systematics

The first textbook to offer novice and experienced teachers guidelines for the "how" and "why" of self-study teacher research Designed to help pre- and in-service teachers plan, implement, and assess a manageable self-study research project, this unique textbook covers the foundation, history, theoretical underpinnings, and methods of self-study research. Author Anastasia Samaras encourages readers to think deeply about both the "how" and the "why" of this essential professional development tool as they pose questions and formulate personal theories to improve professional practice. Written in a reader-friendly style and filled with interactive activities and examples, the book helps teachers every step of the way as they learn and refine research skills; conduct a literature review; design a research study; work in validation groups; collect and analyze data; interpret findings; develop skills in peer critique and review; and write, present, and publish their studies. Key Features A Self-Study Project Planner assists teachers in understanding both the details and process of conducting self-study research. A Critical Friends Portfolio includes innovative critical collaborative inquiries to support the completion of a high quality final research project.

Advice from the most senior self-study academics working in the U.S. and internationally is included, along with descriptions of the self-study methodology that has been refined over time. Examples demonstrate the connections between self-study research, teachers' professional growth, and their students' learning. Tables, charts, and visuals help readers see the big picture and stay organized.

The first edition of this book "Assessing tuberculosis prevalence through population-based surveys" was published by the World Health Organization in 2007 (ISBN 9789290613145). Its aim was to provide guidance to countries about how to estimate the prevalence of tuberculosis (TB) disease through population-based surveys. Designed for TB experts, survey investigators, researchers and advisers at national and international levels, the "red book" (as it soon came to be known) explained the core survey methods, including calculation of sample sizes, strategies for screening and diagnosis, case definitions, field operations, and how to analyse and report results. This second (lime) edition will help users to justify, design, fund, implement and analyse a high-quality national TB prevalence survey; to repeat surveys that allow comparisons with earlier surveys; to maximize the value of the data collected during surveys; and to ensure standardisation of methods across multiple surveys in more than 20 countries in WHO's African, Eastern Mediterranean, South-East Asia and Western Pacific regions.

Qualitative research is designed to explore the human elements of a given topic, while specific qualitative methods examine how individuals see and experience the world. Qualitative approaches are typically used to explore new phenomena and to capture individuals' thoughts, feelings, or interpretations of meaning and process. Such methods are central to research conducted in education, nursing, sociology, anthropology, information studies, and other disciplines in the humanities, social sciences, and health sciences. Qualitative research projects are informed by a wide range of methodologies and theoretical frameworks.

The SAGE Encyclopedia of Qualitative Research Methods presents current and complete information as well as ready-to-use techniques, facts, and examples from the field of qualitative research in a very accessible style. In taking an interdisciplinary approach, these two volumes target a broad audience and fill a gap in the existing reference literature for a general guide to the core concepts that inform qualitative research practices. The entries cover every major facet of qualitative methods, including access to research participants, data coding, research ethics, the role of theory in qualitative research, and much more—all without overwhelming the informed reader. Key Features Defines and explains core concepts, describes the techniques involved in the implementation of qualitative methods, and presents an overview of qualitative approaches to research Offers many entries that point to substantive debates among qualitative researchers regarding how concepts are labeled and the implications of such labels for how qualitative research is valued Guides readers through the complex landscape of the language of qualitative inquiry Includes contributors from various countries and disciplines that reflect a diverse spectrum of research

Get the most from more traditional, positivist approaches, through postmodern, constructionist ones Presents some entries written in first-person voice and others in third-person voice to reflect the diversity of approaches that define qualitative work Key Themes Approaches and Methodologies Arts-Based Research, Ties to Computer Software Data Analysis Data Collection Data Types and Characteristics Dissemination History of Qualitative Research Participants Qualitative Research, Ties to Research Ethics Rigor Textual Analysis, Ties to Theoretical and Philosophical Frameworks The SAGE Encyclopedia of Qualitative Research Methods is designed to appeal to undergraduate and graduate students, practitioners, researchers, consultants, and consumers of informac across the social sciences, humanities, and health sciences, making it a welcome addition to any academic or public library.

Approaches from your study time and experience a realistic USMLE simulation with Rapid Review Biochemistry, 3rd Edition, by Drs. John W. Pelley, and Edward F. Goljan. This new reference in the highly rated Rapid Review Series is formatted as a bullet outline with photographs, tables, and figures that address all the biochemistry information you need to know for the USMLE. And with Student Consult functionality, you can become familiar with the look and feel of the actual exam by taking a timed or a practice online test that includes 350 USMLE-style questions. Author, John Pelley, was 2010 Alpha Omega

Alpha Robert J. Glaser Distinguished Teacher Award John Pelley PhD, an associate author of two popular medical review titles, Rapid Review Biochemistry, and Elsevier's Integrated Review Biochemistry has won the 2010 Alpha Omega (AOA) Robert J. Glaser Distinguished Teacher Award. The award was established by the AOA medical honor society in 1988 to recognize faculty members who have distinguished themselves in medical student education. He is nationally known for applying concept mapping, a learning technique that focuses on building patterns and relationships to concepts, to medical education. The book's most current information with updated chapters, images, and questions. Profit from the guidance of series editor, Dr. Edward Goljan, a well-known author of medical review books, who reviewed and edited every question. Take a timed or a practice test online with more than 350 USMLE-style questions and full rationales for why every possible answer is right or wrong. Access all the information you need to know quickly and easily with a user-friendly, two-color outline format that includes High-Yield Margin Notes. Study and take notes more easily with the new, larger page size. Practice with a new testing platform on USMLE Consult that gives you a realistic review experience and fully prepares you for the exam.

The Difference and Why It Matters

Modern Computer Arithmetic

The Founder's Dilemmas

Advances in Theory, Research, and Methods

Study and Master Mathematical Literacy Grade 12 CAPS Learner's Book

Stochastic Networks

Organizational communication as a field of study has grown tremendously over the past thirty years. This growth is characterized by the development and application of communication perspectives to research on complex organizations in rapidly changing environments. Completely re-conceptualized, The SAGE Handbook of Organizational Communication, Third Edition, is a landmark volume that weaves together the various threads of this interdisciplinary area of scholarship. This edition captures both the changing nature of the field, with its explosion of theoretical perspectives and research agendas, and the transformations that have occurred in organizational life with the emergence of new forms of work, globalization processes, and changing organizational forms. Exploring organizations as complex and dynamic, the Handbook brings a communication lens to bear on multiple organizing processes.

Community Based Participatory Research by Dr. Karen Hacker presents a practical approach to CBPR by describing how an individual researcher might understand and then actually conduct CBPR research. This how-to book provides a concise overview of CBPR theoretical underpinnings, methods considerations, and ethical issues in an accessible format interspersed with real life case examples that can accompany other methodologic texts in multiple disciplines.

This is a general reference work on all aspects of intellectual property, including international treaties and conventions, analyses of all fields of intellectual property, its administration, enforcement and teaching, technological and legal developments, and WIPO's work in its Member States. It covers issues including electronic commerce, biotechnology, traditional knowledge and management of copyright and related rights and WIPO's vision and approaches to meet the challenges with a widening circle of partners. Can be used as a key reference work by creators, innovators, intellectual property lawyers, government officials, university teachers and students.

Argues that a manager's central responsibility is to create and implement strategies, challenges popular motivational practices, and shares anecdotes discussing how to enable action-oriented plans for real-world results.

FAA-H-8083-2

An Educational Psychology

Tuberculosis Prevalence Surveys

Elements of Causal Inference

Foundations and Learning Algorithms

Logic, Language, and Analysis

"WHO has developed this manual in order to strengthen the laboratory diagnosis and virological surveillance of influenza infection by providing standard methods for the collection, detection, isolation and characterization of viruses."—Publisher's description.

The rules regulating behaviour of market and competition authorities are equally important for the work of these authorities as regulation itself. This book discusses the behavioural elements involved when applying regulation, and evaluates the success and failures of such fundamental agency principles.

Mathematical Statistics with Applications in R, Second Edition, offers a modern calculus-based theoretical introduction to mathematical statistics and applications. The book covers many modern statistical computational and simulation concepts that are not covered in other texts, such as the Jackknife, bootstrap methods, the EM algorithms, and Markov chain Monte Carlo (MCMC) methods such as the Metropolis algorithm, Metropolis-Hastings algorithm and the Gibbs sampler. By combining the discussion on the theory of statistics with the wealth of real-world applications, the book helps students to approach statistical problem solving in a logical manner. This book provides a step-by-step procedure to solve real problems, making the topic more accessible. It includes goodness of fit methods to identify the probability distribution that characterizes the probabilistic behavior or a given set of data. Exercises as well as practical, real-world chapter projects are included, and each chapter has an optional section on using Minitab, SPSS and SAS commands. The text also boasts a wide array of coverage of ANOVA, nonparametric, MCMC, Bayesian and empirical methods; solutions to selected problems; data sets; and an image bank for students. Advanced undergraduate and graduate students taking a one to two semester mathematical statistics course will find this book extremely useful in their studies. Step-by-step procedure to solve real problems, making the topic more accessible Exercises blend theory and modern applications Practical, real-world chapter projects Provides an optional section in each chapter on using Minitab, SPSS and SAS commands Wide array of coverage of ANOVA, Nonparametric, MCMC, Bayesian and empirical methods

Globalization has fueled the growth of entrepreneurship. Starting a new venture involves risk taking as well as capital investment. This book delves into all the varied aspects of entrepreneurship. The impact of economic policies, finances, opportunity and capacity are some of the topics covered in this text. It will prove beneficial to students, scholars, professionals, aspiring entrepreneurs, etc.

Community-Based Participatory Research

An Integrated Approach to Just-In-Time

Engineering a Compiler

Power Electronics Handbook

CIA Secret Detention and Extraordinary Rendition

A Reference Guide for Senior Leaders, Managers, and Action Officers

This is the perfect book for any student new to qualitative research. In this exciting and major updating of his bestselling, benchmark text, David Silverman walks the reader through the basics of gathering and analysing qualitative data. David Silverman offers beginners unrivalled hands-on guidance necessary to get the best out of a research methods course or an undergraduate research project. New to the fourth edition:
- A new chapter on data analysis dealing with grounded theory, discourse analysis and narrative analysis
- Further worked-through examples of different kinds of data and how to interpret them
- A separate section on focus groups and interpreting focus group data
- An expanded ethics chapter
- More coverage of digital media and photographs as data
- A companion website with additional case studies and examples, links to SAGE journals online, and links to useful websites, podcasts and Youtube videos. This fourth edition is also accompanied with its own group page on www.methodspace.com where users can give feedback and discuss research issues.Visit www.methodspace.com/group/silverman

Systematics: A Course of Lectures is designed for use in advanced undergraduate or introductory graduate level course insystematics and is meant to present core systematic concepts andnomenclature. The book covers topics such as the history ofsystematic thinking and fundamental concepts in the field including:specimens, homology, and hypothesis testing. Analyticalmethods are covered in detail with chapters devoted to sequencealignment, optimality criteria, and methods such as distance, parsimony, maximum likelihood and Bayesian approaches. Trees andtree searching, consensus and support, and support measures and other relevant topics are each covered in their own sections. The work is not a bleeding-edge statement or in-depth review of the entirety of systematics, but covers the basics as broadly as could be handled in a one-semester course. Most chapters aredesigned to be a single 1.5 hour class, with those on parsimony,likelihood, posterior probability, and tree searching two classes(2 x 1.5 hours).

A concise and self-contained introduction to causal inference, increasingly important in data science and machine learning. The mathematization of causality is a relatively recent development, and has become increasingly important in data science and machine learning. This book offers a self-contained and concise introduction to causal models and how to learn them from data. After explaining the need for causal models and discussing some of the principles underlying causal inference, the book teaches readers how to use causal models: how to compute intervention distributions, how to infer causal models from observational and interventional data, and how causal ideas could be exploited for classical machine learning problems. All of these topics are discussed first in terms of two variables and then in the more general multivariate case. The bivariate case turns out to be a particularly hard problem for causal learning because there are no conditional independences as used by classical methods for solving multivariate cases. The authors consider analyzing statistical asymmetries between cause and effect to be highly instructive, and they report on their decade of intensive research into this problem. The book is accessible to readers with a background in machine learning or statistics, and can be used in graduate courses or as a reference for researchers. The text includes code snippets that can be copied and pasted, exercises, and an appendix with a summary of the most important technical concepts.

Praise for the First Edition "... an excellent textbook ... well organized and neatly written..."—Mathematical Reviews "... amazingly interesting..."—Technometrics Thoroughly updated to showcase the interrelationships between probability, statistics, and stochastic processes, Probability, Statistics, and Stochastic Processes, Second Edition prepares readers to collect, analyze, and characterize data in their chosen fields. Beginning with three chapters that develop probability theory and introduce the axioms of probability, random variables, and joint distributions, the book goes on to present limit theorems and simulation. The authors combine a rigorous, calculus-based development of theory with an intuitive approach that appeals to readers' sense of reason and logic. Including more than 400 examples that help illustrate concepts and theory, the Second Edition features new material on statistical inference and a wealth of newly added topics, including: Consistency of point estimators Large sample theory Bootstrap simulation Multiple hypothesis testing Fisher's exact test and Kolmogorov-Smirnov test Martingales, renewal processes, and Brownian motion One-way analysis of variance and the general linear model Extensively class-tested to ensure an accessible presentation, Probability, Statistics, and Stochastic Processes, Second Edition is an excellent book for courses on probability and statistics at the upper-undergraduate level. The book is also an ideal resource for scientists and engineers in the fields of statistics, mathematics, industrial management, and engineering.

Improving Your Practice Through Collaborative Inquiry

Navy Planning, Programming, Budgeting and Execution

Communicating Science

Devices, Circuits and Applications

Risk Management Handbook

Software Abstractions

Communication networks underpin our modern world, and provide fascinating and challenging examples of large-scale stochastic systems. Randomness arises in communication systems at many levels: for example, the initiation and termination times of calls in a telephone network, or the statistical structure of the arrival streams of packets at routers in the Internet. How can routing, flow control and connection acceptance algorithms be designed to work well in uncertain and random environments? This compact introduction illustrates how stochastic models can be used to shed light on important issues in the design and control of communication networks. It will appeal to readers with a mathematical background wishing to understand this important area of application, and to those with an engineering background who want to grasp the underlying mathematical theory. Each chapter ends with exercises and suggestions for further reading.

Wireless technology is a truly revolutionary paradigm shift, enabling multimedia communications between people and devices from any location. It also underpins exciting applications such as sensor networks, smart homes, telemedicine, and automated highways. This book provides a comprehensive introduction to the underlying theory, design techniques and analytical tools of wireless communications, focusing primarily on the core principles of wireless systems and networks. The characteristics of the wireless systems are then described, including their fundamental capacity limits. Various modulation, coding, and signal processing schemes are then discussed in detail, including state-of-the-art adaptive modulation, multicarrier, spread spectrum, and multiple antenna techniques. The concluding chapters deal with multiuser communications, cellular system design, and ad-hoc network design. Design insights and tradeoffs are emphasized throughout the book. It contains many worked examples, over 200 figures, almost 300 homework exercises, over 700 references, and is an ideal textbook for students.

This book collects a selection of the papers presented at the 21st International Tyrrhenian Workshop on Digital Communications, organized by CNIT and dedicated this year to the theme "Trustworthy Internet". The workshop provided a lively discussion on the challenges involved in reshaping the Internet into a trustworthy reality, articulated around the Internet by and for People, the Internet of Contents, the Internet of Services and the Internet of Things, supported by the Network Infrastructure foundation. The papers have been revised after the workshop to take account of feedbacks received by the audience. The book also includes: i) an introduction by the Editors, setting the scene and presenting evolution scenarios; ii) five papers written by the session chairmen, reputed scientists, and each dedicated to a facet of the trustworthy Internet vision; iii) a concluding paper, reporting the outcomes of a panel held at the conclusion of the workshop, written by the two keynote speakers.

Modern science communication has emerged in the twentieth century as a field of study, a body of practice and a profession—and it is a practice with deep historical roots. We have seen the birth of interactive science centres, the first university actions in teaching and conducting research, and a sharp growth in employment of science communicators. This collection charts the emergence of modern science communication across the world. This is the first volume to give an overview of the national science centres, university courses and conferences as well as tell the national stories of science communication. How did it all begin? How has development varied from one country to another? What motivated governments, institutions and people to see science communication as an answer to questions of the social place of science? Communicating Science describes the pathways followed by 39 different countries. All continents and many cultures are represented. For some countries, this is the first time that their science communication story has been told.

Media & Ethics

Information Theory, Inference and Learning Algorithms

The Algorithm Design Manual

Good Strategy, Bad Strategy

Introduction to Probability Models

Entrepreneurship and Business Management

This tool documents key but enduring aspects of how the Navy implements the Planning, Programming, Budgeting, and Execution process so that action officers and Navy leaders can successfully navigate and effectively contribute to the process.

The SAGE Handbook of Organizational Communication

Refugee Roulette

Globalizing Torture

Manual for the Laboratory Diagnosis and Virological Surveillance of Influenza