

Routledge

Civil Engineering
Textbook Catalogue
Spring 2026



Welcome

Taylor & Francis are pleased to present a selection of our most suitable textbooks for your teaching. Titles have been selected from our comprehensive Routledge and CRC Press lists, full details of which can be found on our website: www.routledge.com If there are any subject areas not included in this catalogue which you are looking for resources for, do get in touch with us and we will see what we can provide. We are, as always, keen to view textbook publishing as a collaborative process and look forward to working with you in the future.

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5TH EDITION

Construction Economics

A New Approach



Danny Myers University of the West of England, UK, and University of Bath, UK

Provides students with the principles underlying the relationship between economic theory and the construction industry. The new edition discusses the economic impact of the Covid pandemic on the industry and the implications of the promise to build back better. It includes new coverage of the opportunities offered by technology, new standards for energy efficiency and wellbeing, coverage of the circular economy, retrofitting and recycling, and a new research section on the journey involved in writing a dissertation or extended essay. Essential undergraduate textbook for construction, quantity surveying, building surveying, architecture and engineering students.

Routledge
May 2022 : 368pp
Pb: 978-1-032-26261-1 : **£54.99**
Hb: 978-1-032-26282-6 : **£155**
eBook: 978-1-003-28751-3

* For full contents and more information, visit: www.routledge.com/9781032262611

Cost Accounting and Financial Management for Construction Project Managers



Len Holm University of Washington, USA

Provides a seamless connection between cost accounting and construction project management from the construction management practitioner's perspective. Covers key topics like financial statements, ratios, cost control, earned value, equipment depreciation, cash flow, cost estimates, change orders, pay requests, project close-out and more advanced topics such as supply chain management, activity based accounting, lean construction techniques, and taxes. Chapters contain review questions and there is a companion website. Ideal for use in cost accounting and financial management classes on undergraduate and graduate construction management or construction engineering programs.

Routledge
August 2018 : 300pp
Pb: 978-1-138-55065-0 : **£78.99**
Hb: 978-1-138-55064-3 : **£155**
eBook: 978-1-315-14730-7

* For full contents and more information, visit: www.routledge.com/9781138550650

Infrastructure Development and Construction Management



J. C. Edison

This is a comprehensive book on 'Infrastructure Development and Construction Management'. It covers infrastructure development, construction industry in India, financial analysis of real estate industry in India, economic analysis of projects, tendering and bidding, contracts and contract management, FIDIC conditions of contract, construction disputes and claims, arbitration, conciliation and dispute resolution, international construction project exports and identifying, analysing and managing construction project risk. This is an essential book for students of construction management, construction professionals, academicians and researchers.

Routledge
October 2020 : 318pp
Pb: 978-0-367-51892-9 : **£41.99**
Hb: 978-0-367-51894-3 : **£155**
eBook: 978-1-003-05562-4

* For full contents and more information, visit: www.routledge.com/9780367518929

Infrastructure Procurement and Funding

Harnessing Investment to Deliver a Better Future



Sharon McClements

Infrastructure Procurement and Funding explores the key models of procuring and financing major projects and infrastructure works whilst critically acknowledging the inherent challenges in successfully securing the necessary funding. The book is ideal reading for international courses in construction procurement, construction project management, infrastructure asset management, real estate investment and finance, but will also be useful for those construction business leaders in public and private sectors who are responsible for making major project and infrastructure financial and investment decisions.

Routledge
September 2022 : 130pp
Pb: 978-0-367-76752-5 : **£52.99**
Hb: 978-0-367-77527-8 : **£155**
eBook: 978-1-003-17180-5

* For full contents and more information, visit: www.routledge.com/9780367767525

5TH EDITION

Construction Contracts

Law and Management



Will Hughes University of Reading, UK, **Ronan Champion** Champion Pearce, UK, **John Murdoch** University of Reading, UK

@text: The fifth edition of this bestselling textbook has been thoroughly revised to provide the most up-to-date and comprehensive coverage of the legislation, administration and management of construction contracts. Includes the latest formats of JCT and FIDIC, as well as coverage of the NEC.

Routledge

April 2015 : 468pp

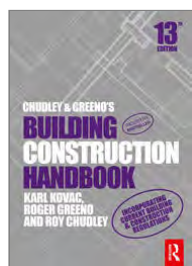
Pb: 978-0-415-65704-4 : **£59.99**Hb: 978-0-415-65705-1 : **£220**

eBook: 978-1-315-69521-1

* For full contents and more information, visit: www.routledge.com/9780415657044

13TH EDITION

Chudley and Greeno's Building Construction Handbook



Roy Chudley Formerly Guildford College of Technology, UK, **Roger Greeno** Construction Consultant, UK, **Karl Kovac** Sheffield Hallam University, UK

The 13th edition of Chudley and Greeno's Building Construction Handbook remains THE authoritative reference for all construction students and professionals. This new edition has been updated to reflect recent changes to the building regulations, as well as new material on modern methods of construction, greater emphasis on sustainability and health and safety. An easy-to-use resource for undergraduate and vocational students on a wide range of courses including NVQ and BTEC National, through to Higher National Certificate and Diploma, to Foundation and three-year Degree level.

Routledge

May 2024 : 728pp

Pb: 978-1-032-49288-9 : **£39.99**

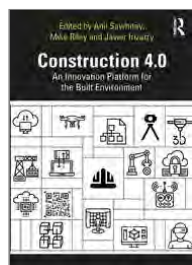
Hb: 978-1-032-49290-2 : **£155**

eBook: 978-1-003-39299-6

* For full contents and more information, visit: www.routledge.com/9781032492889

Construction 4.0

An Innovation Platform for the Built Environment



Edited by **Anil Sawhney**, **Michael Riley**, **Javier Irizarry**

The aim of this handbook is to describe the Construction 4.0 framework and consequently highlight the resultant processes and practices that allow us to plan, design, deliver and operate built environment assets more effectively and efficiently by focusing on the physical-to-digital transformation and then digital-to-physical transformation. This book is essential reading for all built environment and AEC stakeholders who need to get to grips with the technological transformations currently shaping their industry, research and teaching.

Routledge

October 2023 : 526pp

Pb: 978-1-032-65360-0 : **£52.99**

Hb: 978-0-367-02730-8 : **£180**

eBook: 978-0-429-39810-0

* For full contents and more information, visit: www.routledge.com/9781032653600

Construction Company Management



Abid Hasan, **Asheem Shrestha**, **Kumar Neeraj Jha**

This book will give readers a detailed understanding of the critical aspects of running a successful construction company in today's complex regulatory, economic, and social environment. The lifecycle approach will introduce different dimensions of construction company management, including starting up and managing a construction firm successfully. The topics covered reflect current business practices in the industry relevant to international contexts with the help of case studies from different regions of the world. The book serves both students and those who teach construction management courses. Practitioners will also find the practices discussed in the book valuable.

Routledge

September 2024 : 284pp

Pb: 978-1-032-11956-4 : **£49.99**

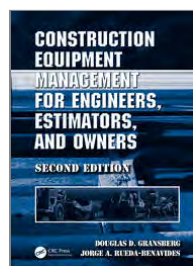
Hb: 978-1-032-12112-3 : **£165**

eBook: 978-1-003-22309-2

* For full contents and more information, visit: www.routledge.com/9781032119564

2ND EDITION

Construction Equipment Management for Engineers, Estimators, and Owners



Douglas D. Gransberg Iowa State University, Ames, USA, **Jorge A. Rueda**

Construction Equipment Management for Engineers, Estimators, and Construction Managers, Second Edition has been extensively rewritten to not only bring it up to date with the state of current practice, but also to serve as a textbook for university courses in construction engineering and management. The authors advanced the previous edition's practical, hands-on approach and added material on the future of construction equipment fleet management, which they believe will require a new technology-based skillset to maximize the cost-effectiveness of construction equipment operations. As such, the book covers the latest construction equipment technologies.

CRC Press

February 2022 : 350pp

Pb: 978-0-367-48884-0 : **£66.99**

Hb: 978-1-498-78848-9 : **£170**

eBook: 978-0-429-18635-6

* For full contents and more information, visit: www.routledge.com/9780367488840

International Construction Management

How the Global Industry Reshapes the World



Igor Martek Deakin University - Australia

This book tells you everything you need to know about international construction: the companies, their markets, the types of projects they build, how they compete and operate, and how it affects us all. The insights provide guidance on how global construction companies develop competitive advantage and stay resilient in the face of a mercurial global economy. These lessons will be of interest to the student and manager alike.

Routledge

February 2022 : 300pp

Pb: 978-0-367-56362-2 : **£49.99**

Hb: 978-0-367-56361-5 : **£155**

eBook: 978-1-003-09740-2

* For full contents and more information, visit: www.routledge.com/9780367563622

2ND EDITION

Introduction to Construction Management



Fred Sherratt University of Bolton, UK

Introduction to Construction Management, Second Edition is the beginner's guide to key concepts, terms, processes and practices associated with modern construction management. The new edition has been fully updated with new data, case studies, and enhancements and remains the most practical and accessible book on the subject available. Supported by diagrams, illustrations and case studies, this is the most approachable text available for anyone starting to learn about construction management at any level.

Routledge

September 2022 : 476pp

Pb: 978-1-032-00744-1 : **£54.99**

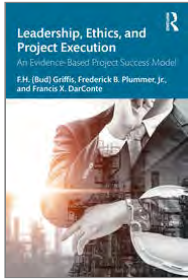
Hb: 978-1-032-00752-6 : **£170**

eBook: 978-1-003-17544-5

* For full contents and more information, visit: www.routledge.com/9781032007441

Leadership, Ethics, and Project Execution

An Evidence-Based Project Success Model



F.H. (Bud) Griffis New York University, New York,
Frederick B. Plummer University of Illinois, Champaign,
Francis X. DarConte New York University, New York

Leadership, Ethics, and Project Execution provides a masterclass in the project and people management skills that set apart the most accomplished design and construction professionals. Interactive exercises allow readers to take the role of junior project managers and other emerging professionals and reason through the ethical dilemmas surrounding building projects from the initial bid to completion. Chapters on stakeholder alignment, productivity, and project success ensure that aspiring leaders' business decisions are as economically sound as they are ethically correct.

Routledge
 November 2021 : 374pp
 Pb: 978-0-367-65425-2 : **£67.99**
 Hb: 978-0-367-65530-3 : **£185**
 eBook: 978-1-003-12994-3

* For full contents and more information, visit: www.routledge.com/9780367654252

2ND EDITION

Lean Project Delivery and Integrated Practices in Modern Construction



Lincoln H. Forbes Florida International University, Miami, USA,
Syed M. Ahmed East Carolina University, USA

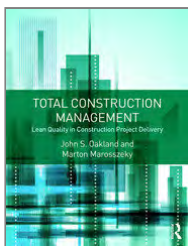
Lean Project Delivery and Integrated Practices in Modern Construction is the new and enhanced edition of Modern Construction by Lincoln H. Forbes and Syed M. Ahmed. This book provides a multi-faceted approach for applying lean methodologies to improve design and construction processes. It builds on the groundwork established by the first edition as a compendium of the latest research and thinking on lean and integrated construction practices. Recognizing the wide diversity in the landscape of projects, and encompassing private and public sector activity, buildings and infrastructure, the book offers a number of approaches to improving construction project management.

Routledge
 April 2020 : 522pp
 Hb: 978-1-138-31124-4 : **£87.99**
 eBook: 978-0-429-45898-9

* For full contents and more information, visit: www.routledge.com/9781138311244

Total Construction Management

Lean Quality in Construction Project Delivery



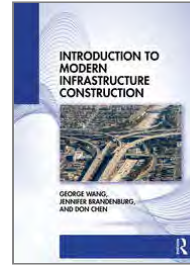
John Oakland , **Marton Marosszeky**

Starting by introducing the language of total quality, lean, and operational excellence, this book takes the reader right up to the latest industry practice in this sector, and demonstrates the best way to manage change. Written by two of the world's leading experts, Total Construction Management offers a clearly structured introduction to the most important management concepts and practices used in the global construction industry today. This authoritative book covers issues such as BIM, institutional waste, and construction safety, all explained with international case studies. It is a perfect guide for construction managers and ideal for those preparing to enter the industry.

Routledge
 February 2017 : 634pp
 Pb: 978-1-138-90854-3 : **£75.99**
 Hb: 978-1-138-90853-6 : **£200**
 eBook: 978-1-315-69435-1

* For full contents and more information, visit: www.routledge.com/9781138908543

Introduction to Modern Infrastructure Construction



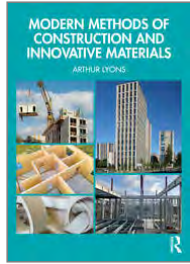
George Wang , **Don Chen** , **Jennifer Brandenburg**

Introducing the basics of infrastructure design and construction—from a construction manager's point of view—this textbook offers an all-in-one primer on heavy civil construction. From the initial bid to a megaproject's final stages, this accessible, jargon-free guide to the construction manager's role on a heavy civil construction jobsite is suitable for graduate and advanced undergraduate students as well as emerging professionals in the field. An ideal resource for a single semester class or a longer course of study, Introduction to Modern Infrastructure Construction readies construction students for success on a megaproject jobsite.

Routledge
 December 2024 : 360pp
 Pb: 978-1-032-05159-8 : **£62.99**
 Hb: 978-1-032-05488-9 : **£115**
 eBook: 978-1-003-19776-8

* For full contents and more information, visit: www.routledge.com/9781032051598

Modern Methods of Construction and Innovative Materials



Arthur Lyons

This new textbook has two main themes. The first is Modern Methods of Construction (MMC), the second is the wide range of developing products for the construction industry. This book is the only book combining these important elements of the future of the industry in an easy-to-read, full colour guide for students and new practitioners. It is essential reading for anyone studying and working in the built environment, be they architects, construction managers, surveyors, or engineers.

Routledge

April 2024 : 254pp

Pb: 978-1-032-41482-9 : **£51.99**

Hb: 978-1-032-41934-3 : **£175**

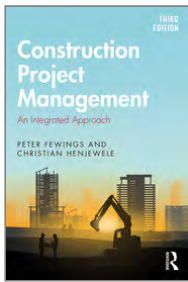
eBook: 978-1-003-36046-9

* For full contents and more information, visit: www.routledge.com/9781032414829

3RD EDITION

Construction Project Management

An Integrated Approach



Peter Fewings University of the West of England, UK,
Peter Fewings , Christian Henjewe Anglia Ruskin University, UK

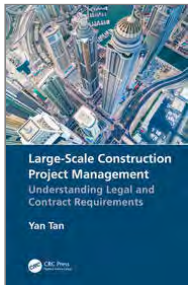
This book combines best practice in construction with the theories underpinning project management and presents a wealth of practical case studies – many new. It focuses on all construction disciplines who may manage projects. The book is uniquely valuable for those in the later years of undergraduate courses, specialist postgraduate courses in project management and for practitioners of all disciplines and clients who have experienced the frustration of the fragmentation of construction projects.

Routledge
 April 2019 : 524pp
 Pb: 978-0-815-35865-7 : **£39.99**
 Hb: 978-0-815-35864-0 : **£155**
 eBook: 978-1-351-12203-0

* For full contents and more information, visit: www.routledge.com/9780815358657

Large-Scale Construction Project Management

Understanding Legal and Contract Requirements



Yan Tan

A majority of large-scale construction and major infrastructure projects are funded by public funds from taxpayers. However, these projects are often subject to severe delays and cost overruns. This book introduces integrated approaches to project management and control mechanisms to effectively manage large-scale construction projects. It explains integrated project governance with regard to time, cost, risk, change, contract management, and more. Further, it discusses the legal issues of scheduling delays and disruptions with regard to the Delay and Disruption Protocol (Society of Construction Law) as well as Forensic Schedule Analysis guidance (American Association of Cost Engineering).

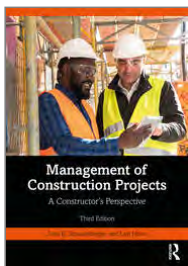
CRC Press
 April 2020 : 243pp
 Hb: 978-1-138-38933-5 : **£125**
 eBook: 978-0-429-42399-4

* For full contents and more information, visit: www.routledge.com/9781138389335

3RD EDITION

Management of Construction Projects

A Constructor's Perspective



John Schaufelberger , Len Holm University of Washington, USA

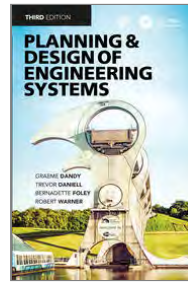
Unique among construction project management textbooks, Management of Construction Projects, 3rd edition, takes the constructor's perspective, carefully analyzing a complex, real-world construction case study from multiple angles to demonstrate the skills, knowledge, and techniques students require to become successful project managers. Popular as an undergraduate text and as a contractor resource, the book prepares upcoming construction project managers with everything they need to see a successful project through from start to finish.

Routledge
 March 2024 : 296pp
 Pb: 978-1-032-49596-5 : **£99.99**
 Hb: 978-1-032-49598-9 : **£245**
 eBook: 978-1-032-70131-8 : **£86.99**

* For full contents and more information, visit: www.routledge.com/9781032495965

3RD EDITION

Planning and Design of Engineering Systems



Graeme Dandy , David Walker University of Adelaide, Australia, **Trevor Daniell , Robert Warner , Graeme Dandy , Trevor Daniell , Bernadette Foley** University of Adelaide, Australia

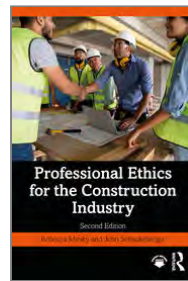
This newly updated book offers a comprehensive introduction to the scope and nature of engineering work, taking a rigorous but common sense approach to the solution of engineering problems

CRC Press
 December 2017 : 460pp
 Pb: 978-1-138-03190-6 : **£52.99**
 Hb: 978-1-138-03189-0 : **£140**
 eBook: 978-1-351-22812-1

* For full contents and more information, visit: www.routledge.com/9781138031906

2ND EDITION

Professional Ethics for the Construction Industry



Rebecca Mirsky , John E. Schaufelberger University of Washington, USA

Professional Ethics for the Construction Industry, 2nd Edition, empowers a new generation of built environment professionals to navigate the ethical challenges confronting them at every stage of a project, from the initial bid to its completion and beyond. Authored by veteran educators and industry professionals, this textbook introduces ethical dilemmas aspiring construction professionals will face on the job—and the critical thinking skills to reason their way out of them. Written to meet curriculum requirements for all levels of construction education, this book explores ethics specific to the construction industry, illustrated by detailed and realistic case studies.

Routledge
 June 2022 : 132pp
 Pb: 978-1-032-26811-8 : **£54.99**
 Hb: 978-1-032-26812-5 : **£140**
 eBook: 978-1-003-29002-5

* For full contents and more information, visit: www.routledge.com/9781032268118

Risk and Systems

With Applications in Infrastructure Project Management



David G. Carmichael

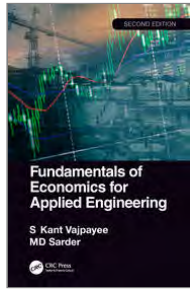
Risk is related to the uncertainty and magnitude of an outcomes. This varies according to a discipline or situation, and depends on a stakeholder's value system. Risk management provides a way of addressing this. This textbook takes a distinctively systems approach, setting out the principles of risk and risk management and looking at a series of applications and more specialist tools and approaches. It offers a rational treatment of risk and risk management which applies across all disciplines, and disciplines beyond engineering and suits both university students and practitioners in industry.

CRC Press
 December 2022 : 206pp
 Pb: 978-1-032-38121-3 : **£49.99**
 Hb: 978-1-032-38122-0 : **£140**
 eBook: 978-1-003-34359-2

* For full contents and more information, visit: www.routledge.com/9781032381213

2ND EDITION

Fundamentals of Economics for Applied Engineering



S. Kant Vajpayee University of Southern Mississippi, USA,
MD Sarder Bowling Green State University, USA

This one-semester introduction to basic engineering economics provides an overview of the theory and mathematics underlying operational business decisions that engineering technology, engineering, and industrial technology students will face in the workplace. Plain language is used and concepts have been kept straightforward with an emphasis on applying economic principles. Practical examples as throughout the text make good use of Microsoft Excel templates, provided on the book's companion website, for students. Exercises provide discussion and multiple-choice questions along with numerical problems, and a solutions manual and instructor resources is given for adopting instructors.

CRC Press

August 2019 : 470pp

Pb: 978-0-367-18947-1 : **£66.99**

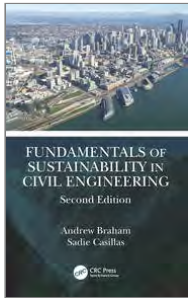
Hb: 978-0-367-18946-4 : **£155**

eBook: 978-0-429-19945-5

* For full contents and more information, visit: www.routledge.com/9780367189471

2ND EDITION

Fundamentals of Sustainability in Civil Engineering



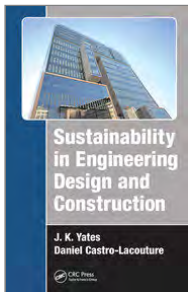
Andrew Braham, Sadie Casillas

This book provides a foundation to understand the development of sustainability in civil engineering, and tools to address the three pillars of sustainability: economics, environment, and society. It includes case studies in the five major areas of civil engineering: environmental, structural, geotechnical, transportation, and construction management. This second edition is updated throughout and adds new chapters on construction engineering as well as an overview of the most common certification programs that revolve around environmental sustainability.

CRC Press
August 2024 : 272pp
Pb: 978-0-367-67587-5 : **£48.99**
Hb: 978-0-367-42025-3 : **£125**
eBook: 978-0-367-81744-2

* For full contents and more information, visit: www.routledge.com/9780367675875

Sustainability in Engineering Design and Construction



J. K. Yates San Jose State University, California, and Consultant, Ramah, New Mexico, USA, **Daniel Castro-Lacouture** Georgia Institute of Technology, Atlanta, USA

This book introduces sustainable development practices and provides insight into the requirements for designing and constructing sustainable structures for all segments of the industry. It addresses sustainability from the perspective of buildings, but it also covers sustainability practices during engineering design and construction for all types of projects, such as heavy and highway construction, industrial construction, the mining and minerals industry, the power industry, and the manufacturing industry, with a focus on addressing sustainability issues during engineering design and construction operations.

CRC Press
September 2015 : 452pp
Hb: 978-1-498-73391-5 : **£170**
eBook: 978-1-315-36866-5

* For full contents and more information, visit: www.routledge.com/9781498733915

2ND EDITION

Sustainable Buildings and Infrastructure

Paths to the Future



Annie R. Pearce Virginia Tech, USA, **Yong Han Ahn** Hanyang University, South Korea, **HanmiGlobal Co, Ltd**

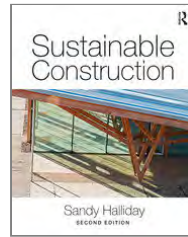
The second edition of Sustainable Buildings and Infrastructure continues to provide students with an introduction to the principles and practices of sustainability as they apply to the construction sector, including both buildings and infrastructure systems. As a textbook, it is aimed at students taking courses in construction management and the built environment, but it is also designed to be a useful reference for practitioners involved in implementing sustainability in their projects or firms. Case studies, best practices, and highlights of cutting edge research are included throughout, making the book both a core reference and a practical guide.

Routledge
December 2017 : 648pp
Pb: 978-1-138-67225-3 : **£67.99**
Hb: 978-1-138-67223-9 : **£155**
eBook: 978-1-315-56264-3

* For full contents and more information, visit: www.routledge.com/9781138672253

2ND EDITION

Sustainable Construction



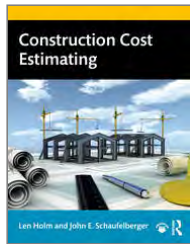
Sandy Halliday

This 2nd edition provides a masterclass on the principles and techniques involved in the design and delivery of practical, affordable, high quality sustainable buildings and places. It presents precedents, theory, concepts and principles alongside 120 wide ranging case studies that highlight current best practice and encourage implementation. Topics in the book include: the history of ideas in the field, policy, sustainable materials, cost, appraisal techniques, environmental design, energy, water, lifecycle issues, construction process issues, and urban ecology. An ideal primer to courses in Architecture, Construction, Engineering, Project Management, Landscape, Urbanism and Development.

Routledge
December 2018 : 478pp
Pb: 978-1-138-20028-9 : **£52.99**
Hb: 978-1-138-20025-8 : **£185**
eBook: 978-1-315-51481-9

* For full contents and more information, visit: www.routledge.com/9781138200289

Construction Cost Estimating



Len Holm , John E. Schaufelberger

Construction Cost Estimating equips a new generation of students and early-career professionals with the skills they need to bid successfully on projects. From developing bid strategies to submitting a completed bid, this innovative textbook introduces the fundamentals of construction estimating through a real life case study that unfolds across its 24 chapters. Construction Cost Estimating ensures that readers are familiar with the entire estimating process before they even set foot on the jobsite.

Routledge

April 2021 : 354pp

Pb: 978-0-367-90268-1 : **£71.99**

Hb: 978-0-367-90271-1 : **£160**

eBook: 978-1-003-02349-4

* For full contents and more information, visit: www.routledge.com/9780367902681

4TH EDITION

Dissertation Research and Writing for Built Environment Students



Shamil G. Naoum London South Bank University, UK

Dissertation Research and Writing for Built Environment Students is the essential guide to get students through their final year research project. Trusted and developed over three previous editions, the new fourth edition shows you how to select a dissertation topic, write a proposal, conduct a literature review, select the research approach, gather the data, analyse and present the information and ultimately produce a well-written dissertation.

Routledge

May 2019: 316pp

Pb: 978-0-815-38463-2 : **£41.99**

Hb: 978-0-815-38462-5 : **£155**

eBook: 978-1-351-20391-3

* For full contents and more information, visit: www.routledge.com/9780815384632

6TH EDITION

Engineering Surveying



Wilf Schofield Formerly Kingston University, UK, **Mark Breach** Nottingham Trent University, UK

Engineering surveying is a critical part of any engineering project, because without an accurate understanding of the size, shape and nature of the site the project risks expensive and time-consuming errors or even catastrophic failure. Working from basic principles and practice right through to the most modern technologies, Wilf Schofield and Mark Breach bring both expertise and clarity to a complex subject. With many worked examples and illustrations of tools and techniques Engineering Surveying is essential reading for student and professional alike.

CRC Press

February 2007 : 638pp

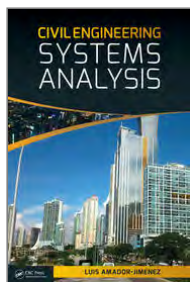
Pb: 978-0-750-66949-8 : **£72.99**

Hb: 978-1-138-37316-7 : **£155**

eBook: 978-1-315-14704-8

* For full contents and more information, visit: www.routledge.com/9780750669498

Civil Engineering Systems Analysis



Luis Amador-Jimenez Concordia University, Canada

This textbook covers tools and a selection of applications in civil engineering systems. It begins by reviewing the mathematical and statistical background for the adequate formulation of civil engineering problems. Then it reviews a series of economic theory topics required to understand current and future demand for infrastructure (i.e. housing, facilities and transportation networks) and its maintenance, improvement and expansion. The book covers problem definition, model formulation and decision making systems, including optimization, estimation and prediction.

CRC Press

August 2016 : 272pp

Pb: 978-1-482-26079-3 : £66.99

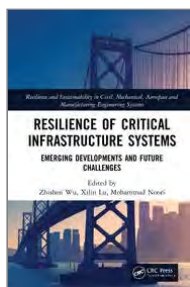
Hb: 978-1-138-47020-0 : £200

eBook: 978-1-315-38142-8

* For full contents and more information, visit: www.routledge.com/9781482260793

Resilience of Critical Infrastructure Systems

Emerging Developments and Future Challenges



Edited by **Zhishen Wu , Xilin Lu , Mohammad Noori**

California Polytechnic State University San Luis Obispo, USA

Series: Resilience and Sustainability in Civil, Mechanical, Aerospace and Manufacturing Engineering Systems

This book provides a comprehensive overview of resilience of infrastructure, new developments in this emerging field and its scopes, including ecology and sustainability, and the challenges involved in building a more resilient civil infrastructure systems of future. Moreover, it introduces a strategic road map for effective and efficient methods that are needed for modeling, designing, and assessing infrastructure system resilience.

CRC Press

May 2020 : 244pp

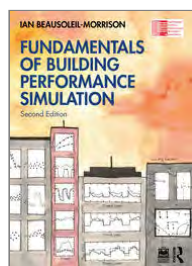
Hb: 978-0-367-47738-7 : £125

eBook: 978-0-367-47739-4

* For full contents and more information, visit: www.routledge.com/9780367477387

2ND EDITION

Fundamentals of Building Performance Simulation



Ian Beausoleil-Morrison Carleton University Ottawa, Ontario, Canada

Fundamentals of Building Performance Simulation, 2nd Edition compares the theory and practice of a multi-disciplinary field to the essentials for classroom learning and real-world applications. This textbook equips students and emerging and established professionals in engineering and architecture to predict and optimize buildings' energy use. The textbook will be accompanied by student and instructor digital resources including chapter introduction videos by the author, software and simulation walkthrough videos, weather data, photographs, drawings and measured data to support the culminating trials.

Routledge

May 2025 : 463pp

Pb: 978-1-032-72478-2 : **£83.99**

Hb: 978-1-032-79589-8 : **£140**

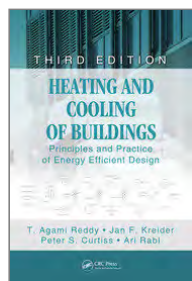
eBook: 978-1-003-49287-0

* For **full contents** and more information, visit: www.routledge.com/9781032724782

3RD EDITION

Heating and Cooling of Buildings

Principles and Practice of Energy Efficient Design, Third Edition



T. Reddy Arizona State University, USA, **Jan F. Kreider**, **Peter S. Curtiss** Curtiss Engineering, Inc., Boulder, Colorado, USA, **Ari Rabi** École des Mines, Paris, France

Series: Mechanical and Aerospace Engineering Series

Structured to provide a rigorous and comprehensive introduction to the design of mechanical systems in buildings, the new revision of this successful text provides up to date coverage based around the latest advances in energy efficiency and green design. Along with numerous new and revised examples, design case studies, and homework problems, the third edition offers an updated version of the HCB software and website, which contains a wealth of data to support design analysis and planning. Based around current codes and standards, this third edition explores the latest technologies that are central to design and operation of today's buildings. .

CRC Press

July 2016 : 900pp

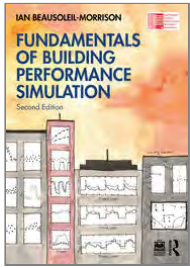
Hb: 978-1-439-89989-2 : **£195**

eBook: 978-1-315-37456-7

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2ND EDITION

Fundamentals of Building Performance Simulation



Ian Beausoleil-Morrison Carleton University Ottawa, Ontario, Canada

Fundamentals of Building Performance Simulation, 2nd Edition compares the theory and practice of a multi-disciplinary field to the essentials for classroom learning and real-world applications. This textbook equips students and emerging and established professionals in engineering and architecture to predict and optimize buildings' energy use. The textbook will be accompanied by student and instructor digital resources including chapter introduction videos by the author, software and simulation walkthrough videos, weather data, photographs, drawings and measured data to support the culminating trials.

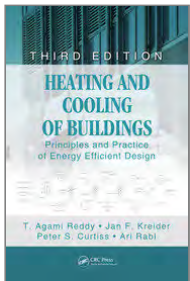
Routledge
May 2025 : 463pp
Pb: 978-1-032-72478-2 : **£83.99**
Hb: 978-1-032-79589-8 : **£140**
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Series: Mechanical and Aerospace Engineering Series

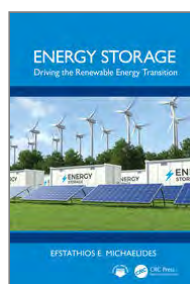
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CRC Press
July 2016 : 900pp
Hb: 978-1-439-89989-2 : **£195**
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Energy Storage

Driving the Renewable Energy Transition



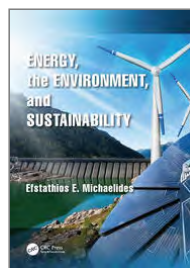
Efstathios E. Michaelides Texas Christian University, USA

Energy Storage provides a thorough and holistic understanding of the operation and state of technology of all the energy storage options. It encompasses all the methods for energy storage, the engineering systems utilized, and the relevant applications from the small device level to the electricity grid level. Using the basis of thermodynamics, the book explains the operation and features of all the available energy storage methods that may be used for the transition to renewable energy. This book is intended for undergraduate and graduate students taking courses in Energy Conversion, Sustainability, Renewables and Energy Storage, and Energy Transition.

CRC Press
March 2025 : 306pp
Hb: 978-1-032-46095-6 : £105
eBook: 978-1-003-38008-5

* For full contents and more information, visit: www.routledge.com/9781032460956

Energy, the Environment, and Sustainability



Efstathios E. Michaelides Texas Christian University, USA

Series: Mechanical and Aerospace Engineering Series

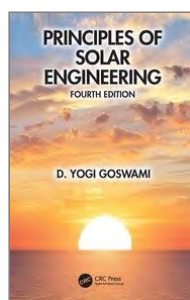
Energy and the Environment explains in simple terms what the energy demand is at the present, what the environmental effects of energy use are, and what can be accomplished to alleviate the environmental effects of energy use and ensure adequate energy supply. Though technical in approach, the text uses simple explanations of engineering processes and systems and algebra-based math to be comprehensible to students in a range of disciplines. Schematic diagrams, quantitative examples, and numerous problems will help students make quantitative calculations. This will assist them in comprehending the complexity of the energy-environment balance, and to analyze and evaluate proposed solutions.

CRC Press
April 2018 : 483pp
Pb: 978-1-138-03844-8 : £155
Hb: 978-1-138-48917-2 : £170
eBook: 978-1-315-17735-9

* For full contents and more information, visit: www.routledge.com/9781138038448

4TH EDITION

Principles of Solar Engineering



D. Yogi Goswami University of South Florida, USA

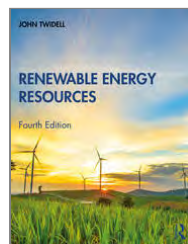
Principles of Solar Engineering, Fourth Edition addresses the need for solar resource assessment and highlights improvements and advancements involving photovoltaics and solar thermal technologies, grid power, and energy storage. With updates made to every chapter, the book discusses new technologies in photovoltaics, such as organic, dye-sensitized and perovskite solar cells, and the design of solar systems and power plants. It features battery energy storage for distributed and bulk storage and electrical integration with the main solar systems. The book is intended for senior undergraduate and graduate engineering students in Energy Engineering and Solar Energy courses.

CRC Press
September 2022 : 656pp
Hb: 978-1-032-15500-5 : £125
eBook: 978-1-003-24438-7

* For full contents and more information, visit: www.routledge.com/9781032155005

4TH EDITION

Renewable Energy Resources



John Twidell AMSET Centre, UK

This is a numerate and quantitative text. It covers the many renewables technologies implemented worldwide by harnessing sustainable resources, mitigating pollution and climate change, and providing cost effective services. This 4th edition is extensively updated by John Twidell with global developments as underpinned by fundamental analysis and illustrated by case studies and worked examples. Renewable Energy Resources supports multi-disciplinary master's degrees in science and engineering, and specialist modules at undergraduate level. Practicing scientists and engineers will find it a useful introductory text and reference book.

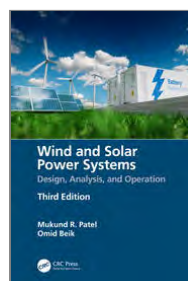
Routledge
November 2021 : 774pp
Pb: 978-0-415-63358-1 : £59.99
Hb: 978-1-138-32226-4 : £170
eBook: 978-0-429-45216-1

* For full contents and more information, visit: www.routledge.com/9780415633581

3RD EDITION

Wind and Solar Power Systems

Design, Analysis, and Operation



Mukund R. Patel U.S. Merchant Marine Academy, USA,
Omid Beik Enercs Inc., Canada

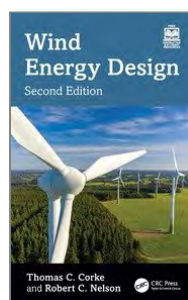
This book provides technological and socio-economic coverage of renewable energy. It discusses wind power technologies, solar photovoltaic technologies, large-scale energy storage technologies, and ancillary power systems. In this new edition, the book addresses advancements that have been made in renewable energy: solar systems have seen great transformation, the power electronics converters, their control and operation, have been improved, and multi-stage, multi-phase systems have been proposed and put into installation. The text has been revised to include up-to-date material, statistics, and current technology trends.

CRC Press
March 2025 : 408pp
Pb: 978-0-367-71620-2 : £55.99
Hb: 978-0-367-47693-9 : £140
eBook: 978-1-003-04295-2

* For full contents and more information, visit: www.routledge.com/9780367716202

2ND EDITION

Wind Energy Design



Thomas C. Corke University of Notre Dame, USA, **Robert C. Nelson** University of Notre Dame, USA

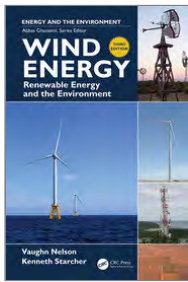
Wind Energy Design provides an understanding of how wind farm design impacts wind turbine performance and offers rigorous design optimization coverage. It explores the blade design features, including aerodynamics, structures, and environmental impact, that yield an efficient rotor. The new edition features new sections on minimizing the costs of electricity and wind farm design for maximum energy capture. It includes a new case study on deployable wind turbines for defense and disaster response missions. This book is intended for upper-level undergraduate engineering students taking courses in Renewable Energy, Wind Power, Energy Systems, and Energy Conversion.

CRC Press
September 2025 : 362pp
Hb: 978-1-041-00752-4 : £125
eBook: 978-1-003-61148-6

* For full contents and more information, visit: www.routledge.com/9781041007524

3RD EDITION

Wind Energy: Renewable Energy and the Environment



Vaughn Nelson West Texas A&M University, Canyon, USA, **Kenneth Starcher** West Texas A&M University, Canyon, USA

Series: Energy and the Environment

This book explores the wind industry from its inception in the 1970s to today; presents the design, aerodynamics, operation, control, applications, and different types of wind turbines; and provides ample reasons to shift from fossil fuels to renewable energy. It also discusses the political and economic factors regarding the adoption of wind as an energy source. It covers the characteristics of wind, such as shear, power potential, and turbulence, and discusses the measurement and siting of individual wind turbines and wind farms. This new edition is fully updated throughout, and adds new material on wind forecasting, offshore wind, decommissioning and repowering wind farms, and more.

CRC Press

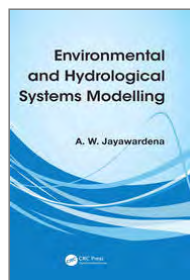
November 2018 : 326pp

Hb: 978-1-138-61534-2 : £140

eBook: 978-0-429-46315-0

* For full contents and more information, visit: www.routledge.com/9781138615342

Environmental and Hydrological Systems Modelling



Amithirigala Widhanelage Jayawardena The
University of Hong Kong

Providing the tools students and professionals need, this book details different approaches to modelling the water environment over a range of spatial and temporal scales. Their applications are shown with a series of case studies, taken mainly from the Asia-Pacific Region. Topics include linear systems, conceptual models, data driven models, process-based models, risk-management models, model parameter estimation as well as model calibration, validation, and testing.

CRC Press

January 2014: 536pp

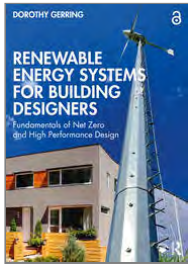
Pb: 978-0-415-46532-8 : **£80.99**

eBook: 978-1-315-27244-3

* For full contents and more information, visit: www.routledge.com/9780415465328

Renewable Energy Systems for Building Designers

Fundamentals of Net Zero and High Performance Design



Dorothy Gerring

Renewable Energy Systems for Building Designers presents a comprehensive introduction to the latest resources and technologies used in high performance and net zero energy buildings, with a practical focus on the design and integration of these systems. This textbook and convenient reference offers a single-source guide to renewable technologies, balancing broad knowledge with the details of implementation crucial for successful sustainable design. It equips students and professionals with foundations and critical information needed to confidently plan for and meet the highest standards of energy-efficiency in new construction and retrofitted buildings.

Routledge

September 2022 : 336pp

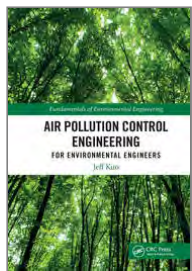
Pb: 978-1-032-28647-1 : **£99.99**

Hb: 978-1-032-28648-8 : **£200**

eBook: 978-1-003-29781-9

* For full contents and more information, visit: www.routledge.com/9781032286471

Air Pollution Control Engineering for Environmental Engineers



Edited by **Jeff Kuo**

Series: *Fundamentals of Environmental Engineering*

Air pollution control and air quality engineering are some of the key subjects in any environmental engineering curriculum. This book will cover topics that are fundamental to pollution control engineers and professionals, including air pollution and its management through regulatory approaches, calculating and estimating emissions, and applying control technologies for different forms of pollutants and emission characteristics for several key industries. In addition, it will include topics that address issues such as fugitive component leak detection and repair, odor containment and control, greenhouse gas emissions, and indoor air pollution, which are often not found in other similar books.

CRC Press

December 2018 : 378pp

Hb: 978-1-138-03204-0 : **£125**

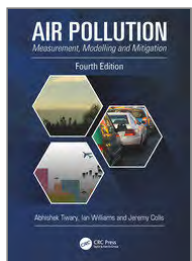
eBook: 978-0-429-18579-3

* For full contents and more information, visit: www.routledge.com/9781138032040

4TH EDITION

Air Pollution

Measurement, Modelling and Mitigation, Fourth Edition



Abhishek Tiwary Northumbria University, UK, **Ian Williams** University of Southampton, UK

This established textbook offers comprehensive coverage of air pollution, a rapidly developing field. The fourth edition, broadly updated and developed throughout, brings a heavily reworked introduction plus new and overhauled chapters on source mitigation, noise and light pollution, and air quality experiments. It adds extra materials geared to the students—case studies, laboratory experiments that can be performed as class practical experiments or as project work, and self-study exercises, plus some more challenging questions at the end of each chapter.

CRC Press

June 2018 : 722pp

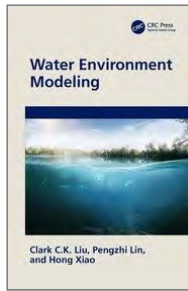
Pb: 978-1-498-71945-2 : **£72.99**

Hb: 978-1-138-50366-3 : **£155**

eBook: 978-0-429-46998-5

* For full contents and more information, visit: www.routledge.com/9781498719452

Water Environment Modeling



Clark C.K. Liu University of Hawaii, USA, **Pengzhi Lin** Sichuan University, China, **Hong Xiao** State Key Laboratory of Hydraulics, Sichuan University

Pollutant and waste loading of the water environment – rivers, lakes, estuaries, aquifers, and coastal waters – need to be modelled and simulated effectively for the selection and application of efficient remedial measures. This textbook covers the formulation and application of mathematical models of water flow and mass transport, both simple analytical models and comprehensive numerical models. It provides many examples and exercises that are derived from actual case studies. It suits advanced undergraduates and graduate students in civil and environmental engineering and related academic fields, and serves as a reference book for practicing engineers and scientists.

CRC Press

November 2021 : 334pp

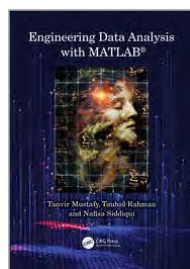
Pb: 978-0-367-44243-9 : **£51.99**

Hb: 978-0-367-44244-6 : **£94.99**

eBook: 978-1-003-00849-1

* For full contents and more information, visit: www.routledge.com/9780367442439

Engineering Data Analysis with MATLAB®



Tanvir Mustafy Military Inst. of Science and Tech, BD,
Tauhid Rahman Military Inst. of Science and Tech, BD,
Nafisa Siddiqui Military Inst. of Science and Tech, BD

This book provides a concise overview of a variety of techniques for analyzing statistical, scientific, and financial data, using MATLAB® to integrate several approaches to data analysis and statistics. Chapters offer a broad review of computational data analysis, illustrated with many examples and applications. Each chapter combines theoretical concepts with practical MATLAB® applications and includes practice exercises, ensuring a comprehensive understanding of the material. With coverage of both basic and more complex ideas in applied statistics, the book has broad appeal for undergraduate students up to practicing engineers.

CRC Press

December 2024 : 902pp

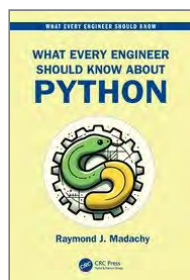
Pb: 978-1-032-50771-2 : **£75.99**

Hb: 978-1-032-50658-6 : **£155**

eBook: 978-1-003-39958-2

* For full contents and more information, visit: www.routledge.com/9781032507712

What Every Engineer Should Know About Python



Raymond J. Madachy Naval Postgraduate School,
 Monterey, California, USA

Series: What Every Engineer Should Know

Engineers of all disciplines can benefit from knowledge of Python. This powerful programming language can help engineers better leverage their skill set and do more sophisticated work in a shorter time. What Every Engineer Should Know About Python provides engineering students and practitioners with a simple and practical introduction to Python for technical programming and other empowering uses for engineering and scientific work, without computer science jargon. This practical and concise book serves as a self-contained introduction to engineers and readers from scientific disciplines new to programming or new to Python.

CRC Press

May 2025 : 318pp

Pb: 978-1-032-35818-5 : **£52.99**

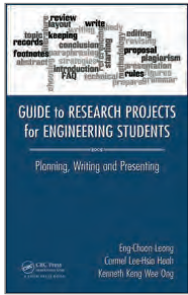
Hb: 978-1-032-35562-7 : **£130**

eBook: 978-1-003-33107-0

* For full contents and more information, visit: www.routledge.com/9781032358185

Guide to Research Projects for Engineering Students

Planning, Writing and Presenting



Eng Choon Leong Nanyang Technological University, Singapore, **Carmel Lee-Hsia Heah** Nanyang Technological University, Singapore, **Kenneth Keng Wee Ong** Nanyang Technological University, Singapore

For students embarking on their first research project, sieving through the vast amount of information on the Internet can be a daunting and time consuming task. Research projects require not just understanding of the research methodology, but also complementary skills including information search, technical writing, oral presentation, and software knowledge. This book is written especially for students who need a quick and concise handbook to support them in conducting research so that they can devote most of their time to their research.

CRC Press

July 2015 : 253pp

Pb: 978-1-482-23877-8 : **£41.99**

Hb: 978-1-138-42428-9 : **£200**

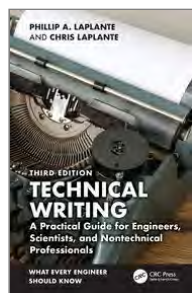
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3RD EDITION

Technical Writing

A Practical Guide for Engineers, Scientists, and Nontechnical Professionals



Philip A. Laplante The Pennsylvania State University, Malvern, USA, **Chris Laplante**

Series: What Every Engineer Should Know

This practical text enables readers to write, edit, and publish materials of a technical nature, including books, articles, reports, and electronic media. Written by experienced practicing engineers, this guide complements traditional technical writing manuals through presentation of first-hand examples that help readers understand practical considerations in writing and producing technical content. The new edition includes new and updated exercises, examples, and case studies and includes new content on software/systems documentation, popular writing tools, and technologies such as generative AI. It is aimed at students and professionals in the science and engineering domains.

CRC Press

November 2025 : 271pp

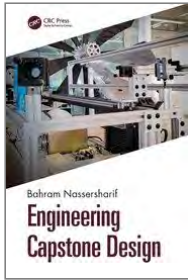
Pb: 978-1-032-84374-2 : **£47.99**

Hb: 978-1-032-84375-9 : **£160**

eBook: 978-1-003-51243-1

* For full contents and more information, visit: www.routledge.com/9781032843742

Engineering Capstone Design



Bahram Nassersharif University of Rhode Island,
Kingston, USA

Structured with a practical approach, the book guides engineering students in capstone design projects. The book addresses the challenge of open-ended design projects, often in a team-based format, discussing team member roles, communication, and cooperation. The book will also interest industry professionals, who are engaged in product development or design problem solving. It incorporates accreditation requirements and provides a modern framework for working with industry, reinforced by case studies. The book covers essential topics and steps in a capstone design sequence, including defining, conceiving, presenting, prototyping, building, testing, and redesigning.

CRC Press

January 2026 : 214pp

Pb: 978-0-367-62161-2 : **£49.99**

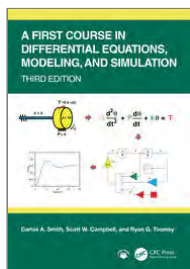
Hb: 978-0-367-62159-9 : **£115**

eBook: 978-1-003-10821-4

* For full contents and more information, visit: www.routledge.com/9780367621612

3RD EDITION

A First Course in Differential Equations, Modeling, and Simulation



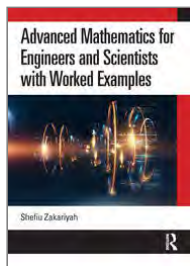
Carlos A. Smith University of South Florida, Tampa, USA,
Scott W. Campbell University of South Florida, Tampa, USA,
Ryan G. Toomey

This textbook shows how differential equations arise from applying basic physical principles and experimental observations to engineering systems. Avoiding overly theoretical explanations, the textbook also discusses classical and Laplace transform methods for obtaining the analytical solution of differential equations. In addition, the authors explain how to solve sets of differential equations where analytical solutions cannot easily be obtained. Incorporating valuable suggestions from mathematicians and mathematics professors, the Third Edition provides students with a practical understanding of how to apply differential equations in modern engineering and science.

CRC Press
 September 2025 : 534pp
 Hb: 978-1-041-02421-7 : **£94.99**
 eBook: 978-1-003-61916-1

* For full contents and more information, visit: www.routledge.com/9781041024217

Advanced Mathematics for Engineers and Scientists with Worked Examples



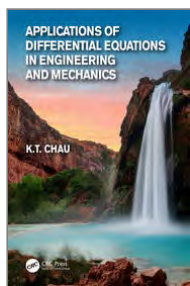
Shefiu Zakariyah University of Derby, UK

This covers core to advanced topics in mathematics, providing a comprehensive, step-by-step presentation of concepts to engineers, scientists and general readers. It moves from simple to challenging areas, with carefully tailored worked examples also of different degrees of challenge. Mathematical concepts are linked with engineering applications. It is written primarily for students at levels 3 and 4 (typically in the early stages of a degree in engineering or a related discipline) or for those undertaking foundation, access, Higher National Certificate (HND), International Foundation Year (IFY), and International Year One (IYO) courses with math modules.

Routledge
 November 2024 : 844pp
 Pb: 978-1-032-66327-2 : **£48.99**
 Hb: 978-1-032-66510-8 : **£115**
 eBook: 978-1-032-66512-2

* For full contents and more information, visit: www.routledge.com/9781032663272

Applications of Differential Equations in Engineering and Mechanics



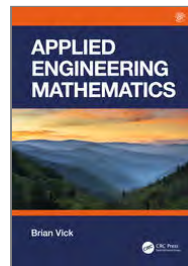
Kam-tim Chau Hong Kong Polytechnic University

This volume gives comprehensive coverage of the essential differential equations students are likely to encounter in solving engineering and mechanics problems - alongside a preliminary companion text on theory. This covers a very broad range of problems, including beams and columns, plates, shells, structural dynamics, catenary and cable suspension bridge, nonlinear buckling, transports and waves in fluids, geophysical fluid flows, nonlinear waves and solitons, Maxwell equations, Schrodinger equations, celestial mechanics and fracture mechanics and dynamics. The focus is on the mathematical technique for solving the differential equations involved.

CRC Press
 December 2018 : 830pp
 Pb: 978-0-367-02643-1 : **£94.99**
 Hb: 978-1-498-76697-5 : **£190**
 eBook: 978-0-429-47064-6

* For full contents and more information, visit: www.routledge.com/9780367026431

Applied Engineering Mathematics



Brian Vick Virginia Tech, USA

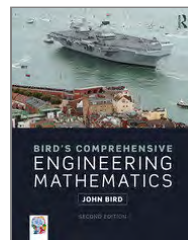
Undergraduate engineering students need good mathematics skills, and this textbook supports this with a strong emphasis on visualization and the methods and tools needed across the whole of engineering. The visual approach is emphasised, and excessive proofs and derivations are avoided. The visual images explain and teach the mathematical methods. The book's website provides dynamic and interactive codes in Mathematica to accompany the examples for the reader to explore on their own.

CRC Press
 May 2020 : 246pp
 Pb: 978-0-367-43276-8 : **£60.99**
 Hb: 978-0-367-43277-5 : **£125**
 eBook: 978-1-003-00226-0

* For full contents and more information, visit: www.routledge.com/9780367432768

2ND EDITION

Bird's Comprehensive Engineering Mathematics



John Bird

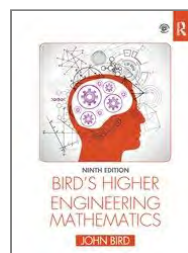
This comprehensive textbook covers the key mathematical principles for real-life engineering problems. Along with its companion website it provides simple explanations, supported by 1600 worked problems and over 3200 further problems contained within 384 exercises throughout the text. With 34 Revision tests together with 9 Multiple-choice tests -- and detailed solutions to 3200 further problems.

Routledge
 June 2018 : 1226pp
 Pb: 978-0-815-37814-3 : **£59.99**
 Hb: 978-0-815-37815-0 : **£170**
 eBook: 978-1-351-23287-6

* For full contents and more information, visit: www.routledge.com/9780815378143

9TH EDITION

Bird's Higher Engineering Mathematics



John Bird Defence College of Technical Training, UK

Higher Engineering Mathematics has helped thousands of students to succeed in their exams by developing problem-solving skills. It is supported by over 600 practical engineering examples and applications which relate theory to practice. The extensive and thorough topic coverage makes this a solid text for undergraduate and upper-level vocational courses. Its companion website provides resources for both students and lecturers, including lists of essential formulae, and full solutions to all 2,000 further questions contained in the 277 practice exercises; and illustrations and answers to revision tests for adopting course instructors.

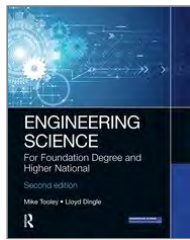
Routledge
 March 2021 : 934pp
 Pb: 978-0-367-64373-7 : **£52.99**
 Hb: 978-0-367-64375-1 : **£125**
 eBook: 978-1-003-12422-1

* For full contents and more information, visit: www.routledge.com/9780367643737

2ND EDITION

Engineering Science

For Foundation Degree and Higher National



Mike Tooley Brooklands College, UK, Lloyd Dingle

Engineering Science will help you understand the scientific principles involved in engineering. Focusing primarily upon core mechanical and electrical science topics, students enrolled on an Engineering Foundation degree and Higher National Engineering qualification will find this book an invaluable aid to their learning. The second edition features new chapters on 'Materials, Properties, Testing and Failure' and 'AC Network Analysis' complete with 54 totally new drawings.

Routledge
September 2020 : 528pp
Pb: 978-0-367-43272-0 : **£52.99**
Hb: 978-0-367-43273-7 : **£155**
eBook: 978-1-003-00224-6

* For full contents and more information, visit: www.routledge.com/9780367432720

7TH EDITION

Engineering Science



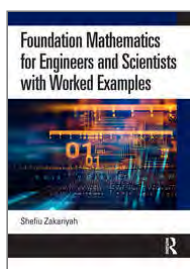
William Bolton

Engineering Science is a comprehensive textbook for all vocational and pre-degree courses at Level 2 and beginning Level 3. It goes beyond the core science to include applications in the real world and the mechanical and electrical principles needed for the majority of courses. It is well supported by numerous worked examples and problems, with answers. Main changes in this edition are arithmetic, algebraic and graphical methods in engineering (for sections A and B of the BTEC Level 2 unit), and a new chapter introducing the basics of calculus.

Routledge
November 2020 : 598pp
Pb: 978-0-367-55445-3 : **£51.99**
Hb: 978-0-367-55443-9 : **£125**
eBook: 978-1-003-09359-6

* For full contents and more information, visit: www.routledge.com/9780367554453

Foundation Mathematics for Engineers and Scientists with Worked Examples



Shefiu Zakariyah University of Derby, UK

This provides a comprehensive, step-by-step presentation of fundamental mathematical concepts for engineers, scientists, and general readers. It moves from simple to challenging areas, with tailored worked examples. Mathematical concepts are linked with appropriate engineering applications and are aligned with topics taught in major UK and overseas curriculums. It is written primarily for students at levels 3 and 4 (typically in the early stages of a degree in engineering or a related discipline) or for those undertaking foundation, access, Higher National Certificate (HND), International Foundation Year (IFY), and International Year One (IYO) courses with math modules.

Routledge
October 2024 : 610pp
Pb: 978-0-367-46289-5 : **£48.99**
Hb: 978-0-367-46290-1 : **£115**
eBook: 978-1-003-02792-8

* For full contents and more information, visit: www.routledge.com/9780367462895

A Mathematics Boot Camp for Science and Engineering Students



Ying Ma

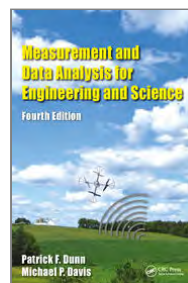
Many students have difficulty applying mathematical techniques to solve problems in science and engineering, even after completing Calculus I and II. Students who are beginning core coursework in their field of study often need additional guidance on practicing, learning, and improving their problem-solving skills for application. This book offers a solution to this issue and is specifically designed to address common errors in mathematical problem-solving for undergraduate science and engineering students. This concise and practical text offers "basic training" in mathematical problem-solving skills for undergraduate students in science and engineering disciplines.

CRC Press
March 2025 : 323pp
Pb: 978-1-032-44294-5 : **£56.99**
Hb: 978-1-032-44295-2 : **£130**
eBook: 978-1-003-37148-9

* For full contents and more information, visit: www.routledge.com/9781032442945

4TH EDITION

Measurement and Data Analysis for Engineering and Science



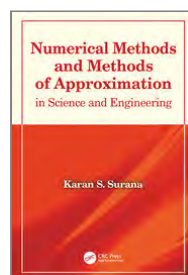
Patrick F. Dunn, Michael P. Davis

Measurement and Data Analysis for Engineering and Science, Fourth Edition, provides up-to-date coverage of experimentation methods in science and engineering. This edition adds five new "concept chapters" to introduce major areas of experimentation generally before the topics are treated in detail, to make the text more accessible for undergraduate students. These feature Measurement System Components, Assessing Measurement System Performance, Setting Signal Sampling Conditions, Analyzing Experimental Results, and Reporting Experimental Results. More practical examples, case studies, and a variety of homework problems have been added; and MATLAB and Simulink resources have been updated.

CRC Press
December 2017 : 588pp
Hb: 978-1-138-05086-0 : **£175**
eBook: 978-1-315-16858-6

* For full contents and more information, visit: www.routledge.com/9781138050860

Numerical Methods and Methods of Approximation in Science and Engineering



Karan S. Surana University of Kansas, USA

Numerical Methods and Methods of Approximation in Science and Engineering prepares students and other readers for advanced studies involving applied numerical and computational analysis. Focused on building a sound theoretical foundation, it uses a clear and simple approach backed by numerous worked examples to facilitate understanding of numerical methods and their application. Readers will learn to structure a sequence of operations into a program, using the programming language of their choice; this approach leads to a deeper understanding of the methods and their limitations. The text features highlighted examples, numerous problems, and a complete Solutions Manual for instructors.

CRC Press
November 2018 : 498pp
Hb: 978-0-367-13672-7 : **£165**
eBook: 978-0-429-02828-1

* For full contents and more information, visit: www.routledge.com/9780367136727

6TH EDITION

Science and Mathematics for Engineering



John Bird

Science and Mathematics for Engineering is an introductory textbook that assumes no prior background in engineering. This 6th edition covers the fundamental scientific knowledge that all trainee engineers must acquire in order to pass their examinations and has been brought fully in line with the compulsory science and mathematics units in the new engineering course specifications. A new chapter covers ways of generating electricity – the present and the future, an important topic in the subject going forward. This book includes over 580 worked examples, 1300 further problems and 425 multiple choice questions and is supported by a companion website.

Routledge

October 2019 : 576pp

Pb: 978-0-367-20474-7 : **£55.99**

Hb: 978-0-367-20475-4 : **£115**

eBook: 978-0-429-26170-1

* For full contents and more information, visit: www.routledge.com/9780367204747

Theory of Differential Equations in Engineering and Mechanics



Kam-tim Chau Hong Kong Polytechnic University

This volume gives comprehensive coverage of the essential differential equations students are likely to encounter in solving engineering and mechanics problems – with its advanced companion text on applications. This covers a very broad range of theories related to solving differential equations, mathematical preliminaries, ODE (n-th order and system of 1st order ODE in matrix form), PDE (1st order, 2nd, and higher order including wave, diffusion, potential, biharmonic equations and more) – plus rarer material such as Green's function, integrodifferential equations, asymptotic expansion and perturbation, calculus of variations, variational principles, finite difference method.

CRC Press

September 2017 : 1000pp

Pb: 978-1-138-74813-2 : **£96.99**

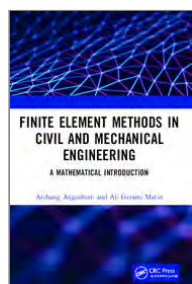
Hb: 978-1-498-76778-1 : **£175**

eBook: 978-1-315-16493-9

* For full contents and more information, visit: www.routledge.com/9781138748132

Finite Element Methods in Civil and Mechanical Engineering

A Mathematical Introduction



Arzhang Angoshtari George Washington University, USA, **Ali Gerami Matin** George Washington University, USA

The finite element method is widely employed for numerical simulations in engineering and science due to its efficiency. This concise introduction to the mathematical theory of the finite element method presents a selection of applications in civil and mechanical engineering such as beams and frames, Poisson's equation, heat transfer, advection-diffusion, linear elasticity, and incompressible fluids. Simple MATLAB codes and /or FENICS scripts of these examples can be downloaded from the book's companion website.

CRC Press

December 2020 : 176pp

Pb: 978-1-138-33517-2 : £51.99

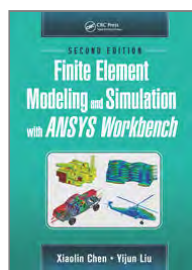
Hb: 978-1-138-33516-5 : £115

eBook: 978-0-429-44250-6

* For full contents and more information, visit: www.routledge.com/9781138335172

2ND EDITION

Finite Element Modeling and Simulation with ANSYS Workbench, Second Edition



Xiaolin Chen Washington State University, Vancouver, USA, **Yijun Liu** University of Cincinnati, Ohio, USA

Finite Element Modeling and Simulation with ANSYS Workbench 18, Second Edition, combines finite element theory with real-world practice. Providing an introduction to finite element modeling and analysis for those with no prior experience, and written by authors with a combined experience of 30 years teaching the subject, this text presents FEM formulations integrated with relevant hands-on instructions for using ANSYS Workbench 18. Incorporating the basic theories of FEA, simulation case studies, and the use of ANSYS Workbench in the modeling of engineering problems, the book also establishes the finite element method as a powerful numerical tool in engineering design and analysis.

CRC Press

September 2018 : 472pp

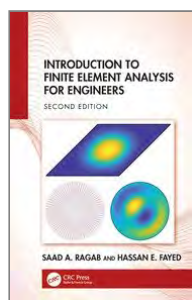
Hb: 978-1-138-48629-4 : £155

eBook: 978-1-351-04587-2

* For full contents and more information, visit: www.routledge.com/9781138486294

2ND EDITION

Introduction to Finite Element Analysis for Engineers



Saad A. Ragab Virginia Tech, USA, **Hassan E. Fayed** Virginia Tech, USA

The book includes MATLAB codes and aims to build a comprehensive understanding of FEA and its applications in modern engineering. New chapters include topics such as a system of partial differential equations in two or more independent variables, while chapter ten presents the finite element method for a nonlinear Mindlin-Reissner plate. The book demonstrates the power and versatility of FEA as a tool, with many examples of practical engineering problems. These problems range from those which can be solved without a computer, to those requiring MATLAB or Python. With applications in Civil, Mechanical, Aerospace and Biomedical Engineering, the textbook is ideal for graduate students.

CRC Press

August 2024 : 772pp

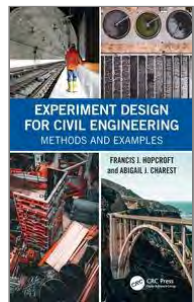
Hb: 978-1-032-34629-8 : £175

eBook: 978-1-003-32315-0

* For full contents and more information, visit: www.routledge.com/9781032346298

Experiment Design for Civil Engineering

Methods and Examples



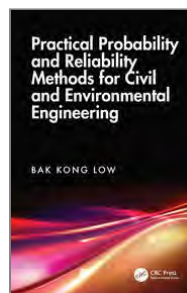
Francis J. Hopcroft, Abigail J. Charest Wentworth Institute of Technology, MA, USA

This textbook provides guidance to students and practicing civil engineers on how to design a civil engineering experiment that will produce useful and unassailable results. It includes a long list of complete experiment designs that students can perform in the laboratory at most universities and that many consulting engineers can do in corporate laboratories. These experiments also provide a way to evaluate a new design against an existing experiment to determine what information is most appropriate in each section and how to format the data for the most effective outcome.

CRC Press
May 2025 : 422pp
Pb: 978-1-032-38770-3 : **£52.99**
Hb: 978-1-032-38200-5 : **£99.99**
eBook: 978-1-003-34668-5

* For full contents and more information, visit: www.routledge.com/9781032387703

Practical Probability and Reliability Methods for Civil and Environmental Engineering



Bak Kong Low

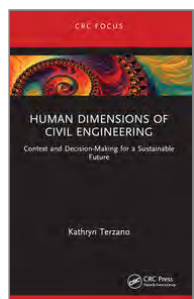
This lucidly sets out useful probabilistic methods and their efficient implementations across civil engineering, including transportation, hydrosystems, environmental, geotechnical and structural engineering. It serves as a textbook for upper-level undergraduates and beginning graduate students. It makes use of Microsoft Excel's versatile constrained optimization Solver tool, using some simple VBA codes, including FORM, SORM, system reliability, importance sampling, direct MCS, and response surface techniques. Solutions can be downloaded free for hands-on appreciation and deeper understanding. PowerPoint slides based on the book are available for adopting course instructors.

CRC Press
April 2026 : 360pp
Pb: 978-1-032-95651-0 : **£73.99**
Hb: 978-1-032-95674-9 : **£160**
eBook: 978-1-003-58603-6

* For full contents and more information, visit: www.routledge.com/9781032956510

Human Dimensions of Civil Engineering

Context and Decision-Making for a Sustainable Future



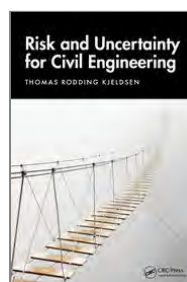
Kathryn Terzano

Besides technical knowledge, civil engineers need to understand the socio-cultural contexts to be effective in their profession and to recognise their work has a direct impact on how sustainably we are able to live, which derives from our larger social, cultural, economic, historical, and political environment. With case studies, takeaway messages, and questions for further thought, this outlines the breadth of the factors, with an understanding of the contextual factors themselves, and insight into how they influence values. Each is explicitly linked to the UN's Sustainable Development Goals, showing how context matters for making engineering decisions for a sustainable future.

CRC Press
December 2024 : 102pp
Pb: 978-1-032-49114-1 : **£20.99**
Hb: 978-1-032-49070-0 : **£57.99**
eBook: 978-1-003-39219-4

* For full contents and more information, visit: www.routledge.com/9781032491141

Risk and Uncertainty for Civil Engineering



Thomas Rodding Kjeldsen

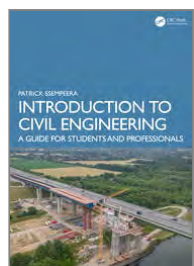
This textbook introduces the fundamental concepts of probability, risk and uncertainty, and shows their relevance in civil engineering projects. With an emphasis on applied probability and statistics, the book aids students in developing an intuitive understanding of the methods to apply in practice. Examples are provided of how spreadsheet tools such as Microsoft Excel can be used to solve problems involving probability, and practical approaches such as Monte Carlo simulations and decision trees are explained in a clear, accessible manner. The book serves as an introductory textbook for undergraduate students in civil engineering, as well as a useful primer for postgraduate students.

CRC Press
January 2025 : 220pp
Pb: 978-1-032-67940-2 : **£52.99**
Hb: 978-1-032-70032-8 : **£130**
eBook: 978-1-032-70037-3

* For full contents and more information, visit: www.routledge.com/9781032679402

Introduction to Civil Engineering

A Guide for Students and Professionals



Patrick Ssempeera CRB Network, Uganda

This comprehensive new textbook bridges the gap between academic knowledge and professional practice in civil engineering, connecting traditionally separate course units into a cohesive whole that teaches readers to "think like a civil engineer". Written primarily for civil engineering students transitioning to industry and early-career professionals seeking to master the profession, this guide also serves as a valuable resource for educators teaching civil engineering courses and experienced professionals requiring a refresher on fundamental principles that unite the various branches of this constantly evolving field.

CRC Press
February 2026 : 332pp
Pb: 978-1-032-91150-2 : **£52.99**
Hb: 978-1-032-91151-9 : **£96.99**
eBook: 978-1-003-56162-0

* For full contents and more information, visit: www.routledge.com/9781032911502

2ND EDITION

Learning Engineering Practice



James Trevelyan

This is an essential, easy-to-read guide for students, early-career engineers, supervisors and human resources professionals, written by the world's leading authority on global engineering practices with decades of research, 40 years teaching engineering, and 50 years working as a professional engineer in several countries. This guide will teach essential engineering soft skills and specialized capabilities to work as an engineer that universities cannot teach.

CRC Press

December 2025 : 260pp

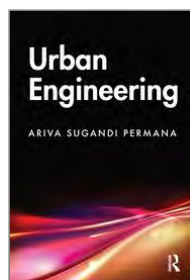
Pb: 978-1-041-17049-5 : **£52.99**

Hb: 978-1-041-17047-1 : **£265**

eBook: 978-1-003-68765-8

* For full contents and more information, visit: www.routledge.com/9781041170495

Urban Engineering



Ariva Sugandi Permana

Urban engineers apply engineering, science, and good management to the complex problems of infrastructure, services, buildings, environment and land-use generally encountered in cities. Good practice is sustainable. This supports a range of undergraduate courses in civil and environmental engineering, urban planning, and related areas. It is broad and inclusive, and takes a modular approach, where each theme is discussed comprehensively from the macro to the micro level.

Routledge

September 2025 : 960pp

Pb: 978-1-032-65801-8 : **£80.99**

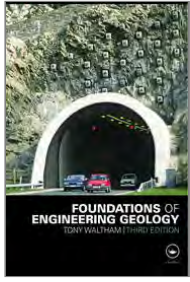
Hb: 978-1-032-66460-6 : **£205**

eBook: 978-1-032-66461-3

* For full contents and more information, visit: www.routledge.com/9781032658018

3RD EDITION

Foundations of Engineering Geology



A.C. Waltham, Tony Waltham Retired from Nottingham Trent University, UK

"A useful source for a quick insight into the subject or a reminder for the practising engineer when difficult ground is encountered." Ground Engineering Now in full colour, the third edition of this well established textbook provides a readable and highly illustrated overview of the aspects of geology that are most significant to civil engineers. Each topic is presented as a double page spread with a mix of text and diagrams.

CRC Press
April 2009 : 104pp
Pb: 978-0-415-46960-9 : **£29.99**
eBook: 978-1-315-27348-8

* For full contents and more information, visit: www.routledge.com/9780415469609

5TH EDITION

Rock Slope Engineering

Civil Applications, Fifth Edition



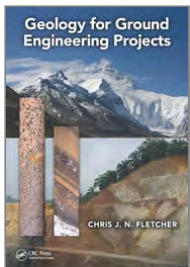
Duncan C. Wyllie Wyllie & Norrish Rock Engineers Ltd., Vancouver, Canada

Rock Slope Engineering covers the investigation, design, excavation and remediation of man-made rock cuts and natural slopes, primarily for civil engineering. It presents design information on structural geology, shear strength of rock and ground water, including weathered rock; slope design methods for planar, wedge, circular and toppling failures, including seismic design and numerical analysis; and blasting, slope stabilization, movement monitoring and engineering applications. Heavily updated and now covering weathered rock, remote sensing, seismic design, and numerical analysis using FLAC and UDEC – the standard reference for practitioners and students in geological engineering.

CRC Press
September 2017 : 620pp
Pb: 978-1-498-78627-0 : **£89.99**
Hb: 978-1-138-05784-5 : **£220**
eBook: 978-1-315-15403-9

* For full contents and more information, visit: www.routledge.com/9781498786270

Geology for Ground Engineering Projects



Chris J. N. Fletcher Geological Consultant, United Kingdom

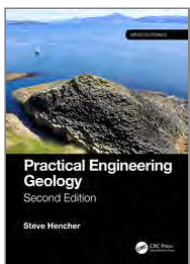
This book provides a presentation of geological phenomena found all over the world, focusing on aspects which are critical in engineering projects. It describes rocks in relation to the environment of their formation, highlighting the variation in composition, distribution and geotechnical properties that can be expected within a variety of rock associations. It includes case studies, is well-illustrated, and reference is given to satellite images as found on GoogleEarth.

CRC Press
May 2016 : 312pp
Pb: 978-1-466-58549-2 : **£80.99**
Hb: 978-1-138-46576-3 : **£205**
eBook: 978-1-315-38046-9

* For full contents and more information, visit: www.routledge.com/9781466585492

2ND EDITION

Practical Engineering Geology



Steve Hencher Hencher Associates, UK

Series: Applied Geotechnics

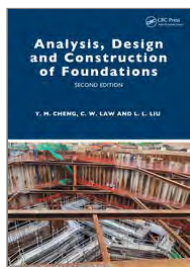
This book provides an introduction to the way projects are managed, designed, and constructed, and how the engineering geologist can contribute to cost-effective and safe project achievement. The need for a holistic view of geological materials, from soil to rock, and of geological history is emphasised. This second edition includes a new chapter on environmental issues covering hydrogeology, considerations of climate change, earthquakes, and more. The book will support practising engineering geologists and geotechnical engineers, as well as MSc level students of engineering geology and other geotechnical subjects.

CRC Press
April 2024 : 566pp
Pb: 978-1-032-39224-0 : **£86.99**
Hb: 978-1-032-39225-7 : **£210**
eBook: 978-1-003-34889-4

* For full contents and more information, visit: www.routledge.com/9781032392240

2ND EDITION

Analysis, Design and Construction of Foundations



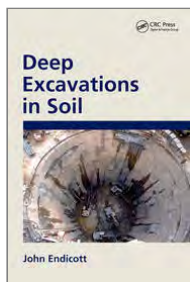
Yung Ming Cheng Hong Kong Polytechnic University, Hong Kong, **Chi Wai Law** Hong Kong, **Leilei Liu** Central South University, China

This book covers the key concepts in the analysis and design of foundation systems, balancing theory with engineering practice. This second edition is extensively revised and developed to include a new chapter on numerical methods in geotechnical engineering, as well as a large number of new construction drawings, project photos, and construction method statements from existing projects. It is ideal for senior undergraduates and graduate students, academics, and consulting geotechnical engineers.

CRC Press
May 2024 : 712pp
Hb: 978-1-032-65056-2 : £175
eBook: 978-1-032-65058-6

* For full contents and more information, visit: www.routledge.com/9781032650562

Deep Excavations in Soil



John Endicott AECOM, Hong Kong

The book describes the theory and current practices for design of earth lateral support for deep excavations in soil. It brings together the principles of soil mechanics, design methods, numerical methods, and more sophisticated computer modelling, along with a strong emphasis on construction practice with monitoring, safety and temporary works. It is heavily illustrated with practical applications and case histories and is written for practising geotechnical, civil and structural engineers, and especially for senior and MSC students.

CRC Press
April 2022 : 258pp
Pb: 978-0-367-50738-1 : £48.99
Hb: 978-0-367-31360-9 : £115
eBook: 978-0-429-31655-5

* For full contents and more information, visit: www.routledge.com/9780367507381

Fundamentals of Deep Excavations



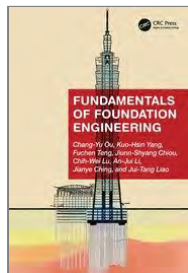
Chang-Yu Ou National Taiwan University of Science and Technology, Taipei, Taiwan

This book is aimed at both theoretical explication and practical application. From basic to advanced, this book attempts to achieve theoretical rigorous and consistency. Each chapter is followed by a problem set so that the book can be readily taught at senior undergraduate and graduate levels. The solution to the problems at the end of the chapters can be found on the author's website. This book is suitable for teachers who teach foundation engineering and/or deep excavation courses and engineers who are engaged in excavation analysis and design.

CRC Press
October 2021 : 486pp
Pb: 978-0-367-42608-8 : £76.99
Hb: 978-0-367-42601-9 : £195
eBook: 978-0-367-85385-3

* For full contents and more information, visit: www.routledge.com/9780367426088

Fundamentals of Foundation Engineering



Chang-Yu Ou National Taiwan University of Science and Technology, Taiwan, **Kuo-Hsin Yang** National Taiwan University (NTU), Taiwan, **Fuchen Teng** National Taiwan University of Science and Technology, Taiwan, **Jiunn-Shyang Chiou** National Taiwan University, Taiwan, **Chih-Wei Lu** National Taiwan University of Science and Technology, Taiwan, **An-Jui Li** National Taiwan University of Science and Technology, Taiwan, **Jianye Ching** National Taiwan University, Taiwan, **Jui-Tang Liao** National Taiwan University of Science and Technology, Taiwan

Fundamentals of Foundation Engineering is a basic course book for civil engineering students. This book introduces the basic design of building foundation, including site investigation, design for various types of building foundation, retaining wall, etc. The book will provide basic knowledge of foundation engineering. The book is simple but understandable for students of foundation engineering. If students fully understand the contents, they should be capable of doing basic design of foundation. The book's primary audience will be undergraduate students, but it will also be of interest to practicing engineers.

CRC Press
September 2023 : 436pp
Pb: 978-1-032-39497-8 : £52.99
Hb: 978-1-032-39498-5 : £140
eBook: 978-1-003-35001-9

* For full contents and more information, visit: www.routledge.com/9781032394978

Tall Building Foundation Design



Harry G. Poulos Coffey Geotechnics, Sydney, Australia

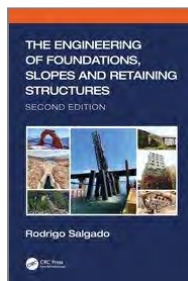
This comprehensive guide to the design of foundations for tall buildings outlines various foundation options followed by the general principles of foundation design applied to tall buildings. It differentiates the preliminary, detailed and final design stages. Methods of assessment of the geotechnical design parameters are emphasised throughout. Detailed treatment is given to foundation design for various conditions, including ultimate stability, serviceability, ground movements, dynamic loadings and seismic loadings; and to basement wall design. The last part of the book deals with pile load testing and foundation performance measurement, and provides a number of case histories.

CRC Press
July 2017 : 560pp
Pb: 978-1-138-74803-3 : £66.99
Hb: 978-1-498-79607-1 : £185
eBook: 978-1-315-15607-1

* For full contents and more information, visit: www.routledge.com/9781138748033

2ND EDITION

The Engineering of Foundations, Slopes and Retaining Structures



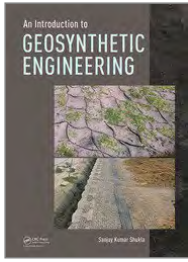
Rodrigo Salgado Purdue University, USA

This new edition covers the construction, analysis, and design of shallow and deep foundations, as well as retaining structures and slopes. It includes complete coverage of soil mechanics and site investigations. It contains illustrations, applications, and hands-on examples that continue across chapters. The new edition is overhauled: basic soil mechanics, the LRFD approach to foundations, slopes and retaining structures, bearing capacity of shallow foundations and settlement calculation, new methods for axially and laterally loaded piles, and computational stability calculations. For advanced undergraduate and graduate students, and beyond.

CRC Press
June 2022 : 994pp
Pb: 978-1-138-19764-0 : £69.99
Hb: 978-1-138-19763-3 : £170
eBook: 978-1-315-21336-1

* For full contents and more information, visit: www.routledge.com/9781138197640

An Introduction to Geosynthetic Engineering



Sanjay Kumar Shukla Edith Cowan University, Western Australia

Civil engineers are growing increasingly interested in geosynthetics and in understanding their correct use. Significant advances have now been made in the use of geosynthetics in civil engineering applications as well as in the areas of aquaculture, agriculture and mining engineering. This concise introductory textbook on geosynthetics deals with the basic concepts of the subject, especially for meeting the requirements of senior undergraduate/graduate students as well as of practising engineers who have not been exposed to geosynthetics thus far. It includes recently developed fundamental concepts and new applications covering the use of polymer and other fibres in soil improvement.

CRC Press

June 2016 : 472pp

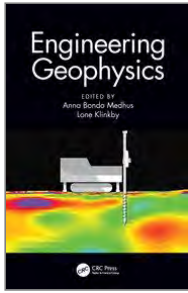
Pb: 978-1-138-02774-9 : **£80.99**

Hb: 978-1-138-43021-1 : **£200**

eBook: 978-0-429-25540-3

* For full contents and more information, visit: www.routledge.com/9781138027749

Engineering Geophysics



Edited by **Anna Bondo Medhus** Energinet, Denmark,
Lone Klinkby COWI, Denmark

The book is intended mainly for geotechnical engineers and geologists, but also for geophysicists or managers in need of an overview or brush up on geophysical methods and their practical applications. In addition, it can be used by educational institutions in courses both for geotechnical engineers and geologists.

CRC Press

November 2022 : 324pp

Hb: 978-1-032-02688-6 : **£170**

eBook: 978-1-003-18467-6

* For full contents and more information, visit: www.routledge.com/9781032026886

Geotechnical Problems and Solutions

A Practical Perspective



Buddhima Indraratna University of Wollongong,
Australia, **Ana Heitor**, **Jayan Vinod**

This book covers problems and solutions of a wide range of geotechnical topics. It presents a unique collection of step by step solutions from basic to more complex problems in various topics of geotechnical engineering, including fundamental topics such as effective stress, permeability, elastic deformation, shear strength and critical state together with more applied topics such as retaining structures and dams, excavation and tunnels, pavement infrastructure, unsaturated soil mechanics, marine works, ground monitoring. This book aims to provide students (undergraduates and postgraduates) and practitioners alike a reference guide on how to solve typical geotechnical problems.

CRC Press

September 2021 : 254pp

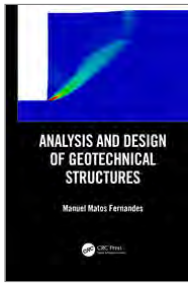
Pb: 978-0-367-54605-2 : **£33.99**

Hb: 978-1-138-48944-8 : **£94.99**

eBook: 978-1-351-03734-1

* For full contents and more information, visit: www.routledge.com/9780367546052

Analysis and Design of Geotechnical Structures



Manuel Matos Fernandes University of Porto, Portugal

Analysis and Design of Geotechnical Structures bridges the gap between basic soil mechanics and geotechnical engineering practice to particularly suit Masters students. It presents the theory and methods underpinning geotechnical design and also serves as a manual for practitioners. With solutions manual. Basic principles and analysis are given with design practice to Eurocode 7, with a series of topics including: overall stability of soil masses, earth pressure, spread foundations, consolidation theory and delayed settlements in clayey soils, earth-retaining walls, natural slopes, and compacted fill and earthworks. Along with geotechnical characterization, with a focus on field tests.

CRC Press
August 2020 : 754pp
Pb: 978-0-367-02663-9 : **£60.99**
Hb: 978-0-367-02662-2 : **£170**
eBook: 978-0-429-39845-2

* For full contents and more information, visit: www.routledge.com/9780367026639

Fundamentals of Ground Engineering



John Atkinson City University, United Kingdom

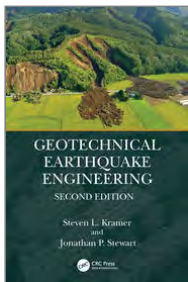
This book contains brief summaries of the key principles, theories, definitions, and analyses of geotechnics. It sets out the basic principles and theories of soil mechanics and the common analyses for slopes, foundations, and walls and includes sections on ground modeling and selection of design parameters. It does not go into detailed explanations and justifications and it does not derive formulae and analyses but it gives extensive references to the longer standard texts which readers can consult for detailed explanations.

CRC Press
May 2014 : 242pp
Pb: 978-1-482-20617-3 : **£33.99**
Hb: 978-1-138-43022-8 : **£205**
eBook: 978-0-429-17095-9

* For full contents and more information, visit: www.routledge.com/9781482206173

2ND EDITION

Geotechnical Earthquake Engineering



Steven L. Kramer University of Washington, USA,
Jonathan P. Stewart University of California Los Angeles, USA

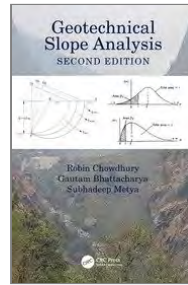
This fully-updated new edition provides an introduction to geotechnical earthquake engineering to first-time readers (typically first-year graduate students) with a level of detail that will be useful to more advanced students, as well as researchers and practitioners. It covers the topic of geotechnical earthquake engineering beginning with an introduction to seismology and earthquake ground motions. It also includes hazard analysis and performance-based earthquake engineering design and dynamic soil properties. These topics are followed by site response and its analysis and soil-structure interaction.

CRC Press
November 2024 : 1060pp
Hb: 978-1-032-84274-5 : **£115**
eBook: 978-1-003-51201-1

* For full contents and more information, visit: www.routledge.com/9781032842745

2ND EDITION

Geotechnical Slope Analysis



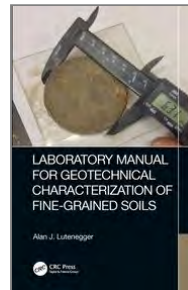
Robin Chowdhury University of Wollongong, Australia,
Gautam Bhattacharya Indian Institute of Engineering Science and Technology, Shibpur, India, **Subhadeep Metya** National Institute of Technology, Jamshedpur, India

This SECOND EDITION OF GEOTECHNICAL SLOPE ANALYSIS is an updated version of the original scholarly book. In this Edition concepts and applications have been thoroughly revised. In particular, the 'Initial Stress Approach' has been extended to 2D problems in a more rigorous manner. Additional solved numerical examples have been added in several chapters. More importantly, the meaning of the results is explored through interpretation.

CRC Press
November 2023 : 822pp
Hb: 978-1-138-00011-7 : **£140**
eBook: 978-0-203-38627-9

* For full contents and more information, visit: www.routledge.com/9781138000117

Laboratory Manual for Geotechnical Characterization of Fine-Grained Soils



Alan J. Lutenecker University of Massachusetts, Amherst, USA

Most laboratory testing of fine-grained soils involves evaluation of basic soil behaviour. Generally little attention is given to characterizing the soil in more detail, by identifying subtle changes in conditions and vertical variations in the soil and which help explain unusual behaviour. This manual covers characterization tests such as determination of carbonate content, specific surface area, cation exchange capacity, and pore fluid salinity which determine soil composition, and behaviour tests such as the Atterberg Limits tests that demonstrate how the fines fraction of a soil reacts when mixed with water or the Linear Shrinkage test.

CRC Press
December 2024 : 330pp
Pb: 978-1-032-20346-1 : **£52.99**
Hb: 978-1-032-20345-4 : **£91.99**
eBook: 978-1-003-26328-9

* For full contents and more information, visit: www.routledge.com/9781032203461

Offshore Geotechnical Engineering



Mark Randolph University of Western Australia, Perth,
Susan Gourvenec University of Western Australia, Perth, Australia

A guide to the unique aspects of geotechnical engineering in an offshore environment. Serves as a framework for undergraduate and postgraduate courses, and will appeal to professional engineers specialising in the offshore industry. selected contents: 1.Introduction 2.The Offshore Environment 3.Offshore Site Investigation 4.Soil Behaviour 5.Piled Foundations 6. Shallow Foundations 7.Anchoring Systems 8.Mobile Drilling Rigs 9.Pipeline and Riser Geotechnics 10.Geohazards 11.Design and Reliability

CRC Press
April 2017 : 560pp
Pb: 978-1-138-07472-9 : **£80.99**
Hb: 978-0-415-47744-4 : **£235**
eBook: 978-1-315-27247-4

* For full contents and more information, visit: www.routledge.com/9781138074729

Geotechnical Modelling



David Muir Wood University of Bristol, UK

Series: Applied Geotechnics

This book enables practising engineers to make informed decisions concerning soil model boundary conditions and the choice of elements in Finite Element models. Ideal for MSc and MEng students and for use on CPD courses.

CRC Press

July 2004 : 504pp

Pb: 978-0-419-23730-3 : **£69.99**

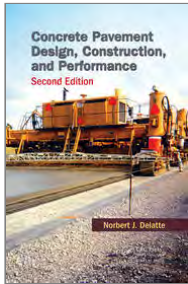
Hb: 978-0-415-34304-6 : **£245**

eBook: 978-1-315-27355-6

* For full contents and more information, visit: www.routledge.com/9780419237303

2ND EDITION

Concrete Pavement Design, Construction, and Performance



Norbert J. Delatte Cleveland State University, Ohio, USA

This book addresses the design, construction, and performance of concrete pavements. It sets out best practices for the construction of economical, long-life concrete pavement by engineers in the public and private sectors. It also outlines first alternatives for concrete pavement solutions, and identifies their performance and behavior parameters. The text addresses materials selection and mix design as well as pavement construction. It emphasizes the coherence of these three elements: materials, design, and construction, and covers highways, airport, industrial, and light-duty pavements.

CRC Press

March 2017 : 448pp

Pb: 978-1-138-07354-8 : £66.99

Hb: 978-1-466-57510-3 : £170

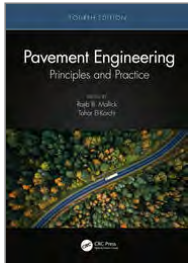
eBook: 978-0-429-10178-6

* For full contents and more information, visit: www.routledge.com/9781138073548

4TH EDITION

Pavement Engineering

Principles and Practice



Rajib B. Mallick, Tahar El-Korchi Worcester Polytechnic Institute, Massachusetts, USA

Pavement Engineering: Principles and Practice examines a wide range of topics in asphalt and concrete pavements, from soil preparation and structural design to life cycle costing and economic analysis. This updated Fourth Edition covers all concepts and practices of pavement engineering in terms of materials, design, and construction methods for both flexible and rigid pavements, and includes the latest developments in recycling, sustainable pavement materials, and resilient infrastructure.

CRC Press

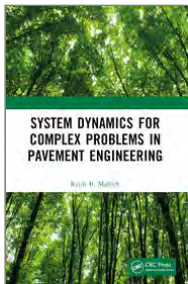
December 2022 : 818pp

Hb: 978-0-367-75807-3 : £140

eBook: 978-1-003-35349-2

* For full contents and more information, visit: www.routledge.com/9780367758073

System Dynamics for Complex Problems in Pavement Engineering



Rajib Mallick University of Texas El Paso, United States

Most, if not all, civil engineering problems are those involving interdependency, and hence segmented approaches of learning one individual topic at a time makes it difficult for students to learn, understand, and apply rational concepts for the design, construction, and maintenance of larger infrastructure components. System Dynamics for Complex Problems in Pavement Engineering presents an introduction to a systems approach to help readers evolve and develop their capabilities of learning, communicating, and researching through system dynamics modeling and experimentation.

CRC Press

May 2025 : 156pp

Pb: 978-1-032-38556-3 : £52.99

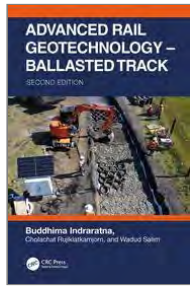
Hb: 978-1-032-38290-6 : £83.99

eBook: 978-1-003-34559-6

* For full contents and more information, visit: www.routledge.com/9781032385563

2ND EDITION

Advanced Rail Geotechnology – Ballasted Track



Buddhima Indraratna University of Technology Sydney, Australia, **Chalachat Rujikiatkamjorn**, **Wadud Salim** University of Wollongong, Australia

In this book, the authors present the detailed information on the strength, deformation, and degradation aspects of fresh and recycled ballast under monotonic, cyclic and impact loading using innovative geotechnical testing devices. A constitutive model for ballast incorporating particle breakage is presented representing a more realistic stress-strain response. Revised ballast gradation is described to provide greater track resiliency and extended longevity. The book also provides detailed description of geosynthetics for substructure improvement considering track deterioration caused by particle degradation, fouling and impeded drainage.

CRC Press

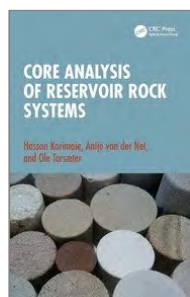
August 2023 : 466pp

Hb: 978-1-032-24491-4 : £220

eBook: 978-1-003-27897-9

* For full contents and more information, visit: www.routledge.com/9781032244914

Core Analysis of Reservoir Rock Systems



Hassan Karimaie, Antje van der Net, Ole Torsæter

Core analysis is an important source for quantitative data on reservoir properties. While there are several books on core analysis for practitioners in these fields, this book fills a gap for students and introduces the basic laboratory equipment and procedures used in core analysis and the theoretical aspects of the parameters. It offers detailed instructions on experimental execution for core analysis for persons with limited to no experience starting in the laboratory. This concise and practical workbook is written for advanced students and early career practitioners in petroleum, chemical, and geotechnical engineering.

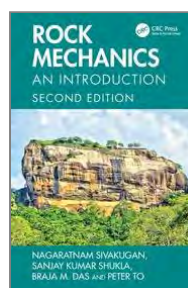
CRC Press
December 2024 : 408pp
Hb: 978-1-032-46618-7 : **£62.99**
eBook: 978-1-003-38258-4

* For full contents and more information, visit: www.routledge.com/9781032466187

2ND EDITION

Rock Mechanics

An Introduction



Nagaratnam Sivakugan James Cook University, Queensland, Australia, **Sanjay Kumar Shukla** Edith Cowan University, Western Australia, **Braja M. Das**, **Peter To**

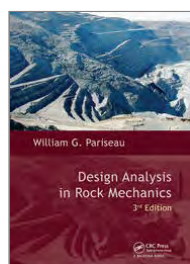
Rock mechanics is a multidisciplinary specialised subject in mining, geological engineering, mining, tunnelling, as well as geotechnical engineering. This textbook is primarily for students at graduate level who are facing careers as professional geotechnical engineers. It introduces rock mechanics fundamentals in a simple way with a strong practical bias, assuming no prior knowledge in the subject, and can also suit undergraduates and civil, mining, petroleum, and geological engineering professionals. This new edition brings in a completely new chapter on tunneling as well as more on numerical analysis and software, and sections on slope failure mechanisms and petroleum geology.

CRC Press
September 2025 : 307pp
Hb: 978-1-032-71468-4 : **£105**
eBook: 978-1-032-72516-1

* For full contents and more information, visit: www.routledge.com/9781032714684

3RD EDITION

Design Analysis in Rock Mechanics



William G. Pariseau University of Utah, Salt Lake City, USA

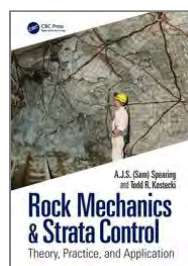
This third edition of Design Analysis in Rock Mechanics, a textbook for courses in applied rock mechanics, treats the basics of rock mechanics design as used in surface and underground excavations. Exercises and examples familiarize the reader with solving practical problems in rock mechanics through various design analysis techniques and their applications. Appendices provide supplementary information about rock, joint, and composite properties, rock mass classification schemes, useful formulas, and an extensive literature list. The new edition will contain an entirely new chapter on foundations and bearing capacity of jointed rock, and will be fully updated throughout.

CRC Press
September 2023 : 730pp
Pb: 978-1-032-65239-9 : **£52.99**
Hb: 978-1-138-02958-3 : **£105**
eBook: 978-1-315-20615-8

* For full contents and more information, visit: www.routledge.com/9781032652399

Rock Mechanics & Strata Control

Theory, Practice, and Application



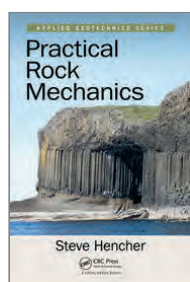
A.J.S. (Sam) Spearing Great Basin College, Elko, Nevada, **T.R. (Todd Ray) Kostecki**

Rock Mechanics & Strata Control: Theory, Practice, and Application serves as a handbook that examines many of the fundamental and practical aspects of rock mechanics and strata control needed to help ensure safe and effective surface and underground mining. Clearly written and comprehensive in scope, the book includes numerous worked examples to elaborate on how to interpret and use the rock mechanics and support principles presented. It also includes fundamental coverage of major aspects of the topic that students and practitioners would find useful.

CRC Press
September 2025 : 600pp
Hb: 978-1-032-70378-7 : **£115**
eBook: 978-1-032-70484-5

* For full contents and more information, visit: www.routledge.com/9781032703787

Practical Rock Mechanics



Steve Hencher

Series: Applied Geotechnics

This text provides an introduction for graduate students, as well as engineering geologists and geotechnical engineers. It is also relevant to those working in nuclear waste disposal and oil and gas production. The early chapters deal with fundamental mechanics and physics as they apply to rock masses. It provides an introduction to the geological processes that give rise to the nature of rock masses and control their mechanical behavior. It discusses stresses in the earth's crust and explains methods of measurement and prediction.

CRC Press
September 2015 : 378pp
Pb: 978-1-482-21726-1 : **£80.99**
Hb: 978-1-138-43039-6 : **£205**
eBook: 978-0-429-06831-7

* For full contents and more information, visit: www.routledge.com/9781482217261

Rock Mechanics Through Project-Based Learning



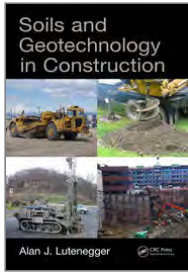
Ivan Gratchev Griffith University, Southport, Australia

Traditional textbooks on rock mechanics often fail to engage students in the learning process as such books are packed with theory that students are unlikely to use in their future employment. In contrast, this book delivers the fundamentals of rock mechanics using a more practical and engaging project-based approach which simulates what practitioners do in their real-life practice. This book will be of great help to those who would like to learn practical aspects of rock mechanics and better understand how to apply theory to solve real engineering problems.

CRC Press
November 2019 : 162pp
Pb: 978-0-367-23219-1 : **£66.99**
Hb: 978-0-367-23203-0 : **£170**
eBook: 978-0-429-27883-9

* For full contents and more information, visit: www.routledge.com/9780367232191

Soils and Geotechnology in Construction



Alan J. Lutenecker University of Massachusetts,
Amherst, USA

This book covers the field of applied geotechnology related to all aspects of construction in ground, including compacted fill, excavations, ground improvement, foundations, earth retaining systems and geotechnical site characterization. It suits the first year of a graduate course on ground improvement and geoconstruction and will suit practicing engineers, both consultants and contractors. It covers the identification of problematic soils and appropriate mitigation measures, and the inspection of ground construction work. It combines the technical and the practical in applied geotechnology.

CRC Press

April 2019 : 505pp

Pb: 978-1-498-74101-9 : **£125**

Hb: 978-1-138-55110-7 : **£195**

eBook: 978-1-315-38064-3

* For full contents and more information, visit: www.routledge.com/9781498741019

5TH EDITION

Advanced Soil Mechanics, Fifth Edition



Braja M. Das

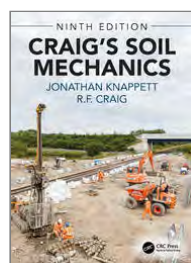
The fifth edition of this established textbook offers a well-tailored resource for graduate students in geotechnical engineering. It bridges the gap between undergraduate basics and leading-edge work at graduate level. New material is included on consolidation, shear strength of soils, and both elastic and consolidation settlements of shallow foundations to accommodate modern developments. This text can be followed by advanced courses dedicated to mechanical and chemical stabilization of soils, geo-environmental engineering, critical state soil mechanics, geosynthetics, rock mechanics, and earthquake engineering. It can also be used as a refer

CRC Press
December 2020 : 734pp
Pb: 978-0-367-73010-9 : **£50.99**
Hb: 978-0-815-37913-3 : **£150**
eBook: 978-1-21518-3

* For full contents and more information, visit: www.routledge.com/9780367730109

9TH EDITION

Craig's Soil Mechanics



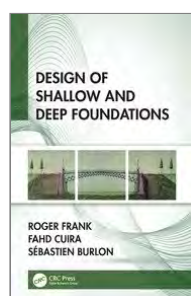
Jonathan Knappett University of Dundee, UK, **R.F. Craig** University of Dundee, UK

Craig's Soil Mechanics continues to evolve and remain the definitive text for civil engineering students worldwide. It covers fundamental soil mechanics and its application in applied geotechnical engineering from A to Z and at the right depth for an undergraduate civil engineer, with sufficient extension material for supporting MSc level courses, and with practical examples and digital tools to make it a useful reference work for practising engineers. This new edition now includes restructured chapters and new material, as well as additional worked examples and end-of-chapter problems.

CRC Press
October 2019 : 654pp
Pb: 978-1-138-07006-6 : **£44.99**
Hb: 978-1-138-07005-9 : **£140**
eBook: 978-1-351-05274-0

* For full contents and more information, visit: www.routledge.com/9781138070066

Design of Shallow and Deep Foundations



Roger Frank, Fahd Cuira, Sébastien Burlon

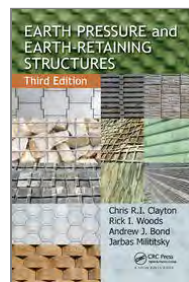
This practical guide to foundations design introduces the concept of limit state calculations, before focusing on shallow and deep foundations. It also presents various elements of ground-structure interaction that are common to all types of foundations, such as allowable displacements of structures, and ground-structure couplings. It is particularly for practising engineers in design offices and contractors, as well as students. Though its focus is generally on French practice, it is more widely applicable to design based on or generally in line with Eurocode7 and with references to BS ENs.

CRC Press
August 2021 : 232pp
Pb: 978-1-032-01688-7 : **£51.99**
Hb: 978-1-032-01687-0 : **£96.99**
eBook: 978-1-003-17959-7

* For full contents and more information, visit: www.routledge.com/9781032016887

3RD EDITION

Earth Pressure and Earth-Retaining Structures



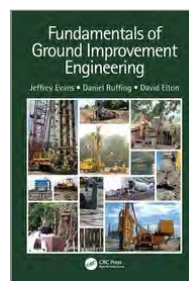
Chris R.I. Clayton University of Southampton, UK, **Rick I. Woods** University of Surrey, UK, **Andrew J. Bond** Geocentrix Ltd, UK, **Jarbas Milititsky** Engineering Consultant, Brazil

This classic work book has long been recognized as a comprehensive introduction to the mechanisms of earth pressure, and a thorough guide to the design requirements for retaining structures. It has now been entirely restructured and revised, providing significantly more support to help non-specialists understand the geotechnical issues and giving background to uncertainty of parameters and partial factor issues that underpin recent codes such as Eurocode 7. It comprehensively covers the principles of the geotechnical design of gravity walls, embedded walls, and composite structures.

CRC Press
May 2014 : 608pp
Pb: 978-1-466-55211-1 : **£65.99**
Hb: 978-1-138-42729-7 : **£200**
eBook: 978-0-429-13090-8

* For full contents and more information, visit: www.routledge.com/9781466552111

Fundamentals of Ground Improvement Engineering



Jeffrey Evans, Daniel Ruffing, David Elton

Fundamentals of Ground Improvement Engineering addresses the most effective and latest cutting-edge techniques for ground improvement. Key ground improvement methods are introduced that provide readers with a thorough understanding of the theory, design principles, and construction approaches that underpin each method. Major topics are compaction, permeation grouting, vibratory methods, soil mixing, stabilization and solidification, cutoff walls, dewatering, consolidation, geosynthetics, jet grouting, ground freezing, compaction grouting, and earth retention.

CRC Press
September 2021 : 430pp
Pb: 978-0-415-69515-2 : **£55.99**
Hb: 978-0-367-41960-8 : **£165**
eBook: 978-0-367-81699-5

* For full contents and more information, visit: www.routledge.com/9780415695152

3RD EDITION

Groundwater Lowering in Construction

A Practical Guide to Dewatering



Pat Cashman, Martin Preene Golder Associates, United Kingdom

Series: *Applied Geotechnics*

This book covers the design, construction and environmental management of groundwater control and dewatering works for construction projects. It gives broad-based dewatering advice and guidance for practising engineers, geologists and hydrogeologists, and Masters level students. The new edition covers the principles of groundwater flow in more detail, and presents a greater range of design methods and issues. Dewatering methods and practical issues are covered in some depth, including new chapters on monitoring, maintenance and decommissioning of dewatering systems. A new chapter of case studies is also added.

CRC Press
March 2022 : 956pp
Pb: 978-0-367-50475-5 : **£86.99**
Hb: 978-0-367-50474-8 : **£175**
eBook: 978-1-003-05002-5

* For full contents and more information, visit: www.routledge.com/9780367504755

In Situ Testing Methods in Geotechnical Engineering



Alan J. Lutenecker University of Massachusetts, USA

In situ testing methods are commonly used by geotechnical engineers to determine subsurface stratigraphy and soil characteristics for design. This book presents the latest technology on the correct methods for performing a variety of in situ tests and the correct methods of interpreting the results obtained from the tests. Uniquely, it covers both common/routine tests and also describes several tests that are not covered in other available books. It also covers application of in situ tests for design of shallow and deep foundations.

CRC Press
December 2022 : 370pp
Pb: 978-0-367-75874-5 : **£55.99**
Hb: 978-0-367-43241-6 : **£155**
eBook: 978-1-003-00201-7

* For full contents and more information, visit: www.routledge.com/9780367758745

Laboratory Tests for Unsaturated Soils



Eng-Choon Leong Nanyang Technological University, Singapore, **Martin Wijaya** Parahyangan Catholic University, Indonesia

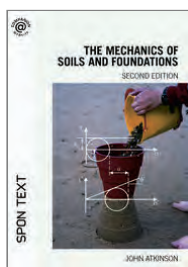
Testing of unsaturated soils is particularly difficult and time-consuming, and guidance for engineers is minimal. This is the first book to systematically collate the various laboratory tests. It covers general background and theory along with test procedures and the interpretation of test results. Test procedures are broken down into simple stages, and the pitfalls are described. Test data and calculation methods are provided along with several numerical examples. It serves for students and researchers who are new to the field as well as for established professionals.

CRC Press
February 2023 : 436pp
Pb: 978-0-367-86058-5 : **£78.99**
Hb: 978-1-138-09382-9 : **£145**
eBook: 978-1-315-10514-7

* For full contents and more information, visit: www.routledge.com/9780367860585

2ND EDITION

The Mechanics of Soils and Foundations



John Atkinson City University, London, UK

John Atkinson's established textbook is ideal for undergraduates of geotechnical engineering for civil engineers. It sets out the basic theories of soil mechanics in a clear and straightforward way which combines both classical and critical state theories, and delivers a good grounding which will last right through into a career as a geotechnical engineer. The subject is broken down into discrete topics which are presented in a series of short, focused chapters with clear and accessible text that develops from the purely theoretical to practical applications. Soil behaviour is described by relatively simple equations with clear parameters while a number of worked examples and simple experimental demonstrations illustrate the principles involved and aid reader understanding.

CRC Press
May 2007 : 474pp
Pb: 978-0-415-36256-6 : **£52.99**
Hb: 978-0-415-36255-9 : **£195**
eBook: 978-1-315-27354-9

* For full contents and more information, visit: www.routledge.com/9780415362566

Soil Mechanics Through Project-Based Learning



Ivan Gratchev Griffith University, Southport, Australia, **Dong-Sheng Jeng** Griffith University, Southport, Australia, **Erwin Oh** Griffith School of Engineering Gold Coast Campus, Griffith University, Southport, Australia

This book covers all significant topics in soil mechanics and slope stability analysis. Each section is followed by several review questions and the reader will be offered to undertake a project-based assignment to scaffold their learning. These consist of real field and laboratory data including boreholes and test results so that the reader can experience what geotechnical engineering practice is like, identify with it personally, and integrate it into their own knowledge base.

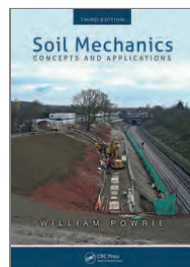
CRC Press
November 2018 : 176pp
Pb: 978-1-138-50007-5 : **£60.99**
Hb: 978-1-138-60573-2 : **£165**
eBook: 978-0-429-50778-6

* For full contents and more information, visit: www.routledge.com/9781138500075

3RD EDITION

Soil Mechanics

Concepts and Applications, Third Edition



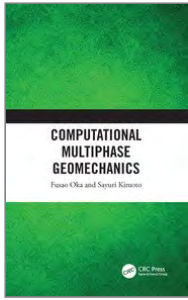
William Powrie University of Southampton, United Kingdom

This is a rigorous and up-to-date textbook covering the soil mechanics and geotechnical engineering topics typically included in a university course. It encourages students to develop an understanding of the fundamentals of soil mechanics, by building a robust and adaptable framework of ideas to support and accommodate the analytical tools needed to solve the more complex problems that confront the practicing geotechnical engineer.

CRC Press
December 2013 : 682pp
Pb: 978-1-466-55209-8 : **£69.99**
eBook: 978-1-315-27528-4

* For full contents and more information, visit: www.routledge.com/9781466552098

Computational Multiphase Geomechanics



Fusao Oka , Sayuri Kimoto Kyoto University, Japan

Numerical methods underpin computational geotechnics, and especially multi-phase geomaterials. This book covers basic concepts of the air-water-soil mixture, cyclic constitutive models, anisotropic models, noncoaxial models, gradient models, compaction bands (a form of volumetric strain localization and strain localization under dynamic conditions), and instability of unsaturated soils. It also includes applications of computational modeling to large-scale excavation of ground, liquefaction analysis of levees during earthquakes, methane hydrate development, and the shielding of contamination using bentonite. The erosion of embankments due to the seepage flow is also presented.

CRC Press

January 2024 : 354pp

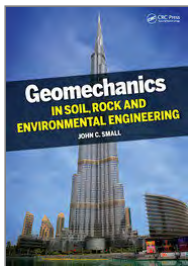
Pb: 978-1-032-05957-0 : **£81.99**

Hb: 978-1-032-05955-6 : **£155**

eBook: 978-1-003-20003-1

* For full contents and more information, visit: www.routledge.com/9781032059570

Geomechanics in Soil, Rock, and Environmental Engineering



John Small The University of Sydney, New South Wales, Australia

Modern practice in geomechanics involves the use of numerical modelling and the internet. These numerical techniques can be applied not only to soil mechanics, but also to rock mechanics and environmental engineering. This textbook covers modern analysis of shallow foundations, deep foundations, retaining structures and excavation and tunneling; and additionally municipal and mining waste and solutions for the disposal and containment of waste. Many fresh solutions to problems are presented to enable more accurate and advanced design to be carried out.

CRC Press

March 2016 : 563pp

Pb: 978-1-498-73929-0 : **£96.99**

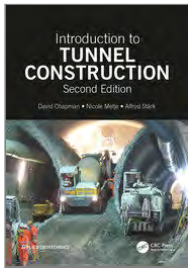
Hb: 978-1-138-43020-4 : **£200**

eBook: 978-1-315-38227-2

* For full contents and more information, visit: www.routledge.com/9781498739290

2ND EDITION

Introduction to Tunnel Construction



David N. Chapman University of Birmingham, United Kingdom, **Nicole Metje**, **Alfred Stark**

Series: Applied Geotechnics

This is a text for undergraduate and MSc students and a guide for young professionals, covering the full principles with case studies of real projects. This new edition includes case studies from Crossrail, focusing on the preparation work to receive a TBM into a station box, and updating the Utilisation Method for assessing the remaining structural capacity of sprayed concrete lining. It also provides further information on recent developments in TBMs, including multimode machines. With some focus on clay soil, the book covers the main tunnelling techniques along with site investigation, parameter selection and design, ground stability, lining techniques, H&S, monitoring, and TBMs.

CRC Press

December 2017 : 455pp

Pb: 978-1-498-76624-1 : **£72.99**

Hb: 978-1-498-76639-5 : **£165**

eBook: 978-1-315-12016-4

* For full contents and more information, visit: www.routledge.com/9781498766241

Soft Ground Tunnel Design



Benoit Jones Inbye Engineering, UK

This book is essentially a manual for the design of tunnels and other underground spaces in soft ground – soil in contrast to rock. It focuses on stability, prediction of ground movements, and structural design of the lining. It shows that the choice of excavation and support methods depends on ground stability, limitation of damage to the existing built environment and health, safety and environmental considerations. It builds on the basic principles of soil-structure interaction, the three-dimensional effects of construction sequence and the effects of construction on other surface or subsurface structures in steps of gradually increasing complexity.

CRC Press

November 2021 : 582pp

Pb: 978-1-482-25467-9 : **£76.99**

Hb: 978-0-367-41959-2 : **£195**

eBook: 978-0-429-47038-7

* For full contents and more information, visit: www.routledge.com/9781482254679

Tunnel Design Methods



Antonio Bobet Purdue University, USA, **Herbert H. Einstein** Massachusetts Institute of Technology, USA

This book covers analytical, numerical and empirical methods for the design of tunnels in soil and in rock. It gives detailed analytical and numerical methods for design engineers, suits graduate students, and guides specialists in ground–support interaction under static and seismic loading. It presents fundamental concepts in ground and support behavior and in ground–excavation–support interaction along with detailed information on methods used for the design of tunnels, with applications, and on the latest developments in empirical methods.

CRC Press

May 2026 : 626pp

Pb: 978-1-032-35845-1 : **£59.99**

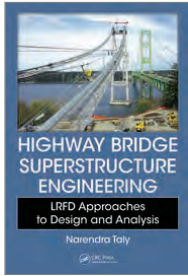
Hb: 978-1-032-35844-4 : **£135**

eBook: 978-1-003-32894-0

* For full contents and more information, visit: www.routledge.com/9781032358451

Highway Bridge Superstructure Engineering

LRFD Approaches to Design and Analysis



Narendra Taly California State University, Los Angeles, USA

This book has been designed to serve as a stand-alone text for a first course in design of highway bridge superstructures as well as a handy reference for educators and practicing engineers. This book is essentially a "how-to" book and has a code-connected design focus. Because of simplicity in style and format, this book can be used as a tool for teaching highway bridge design courses to both undergraduate- and graduate-level classes.

CRC Press

November 2014 : 964pp

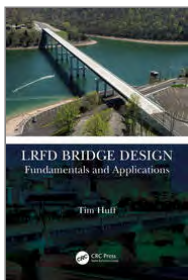
Hb: 978-1-466-55218-0 : £220

eBook: 978-0-429-09657-0

* For full contents and more information, visit: www.routledge.com/9781466552180

LRFD Bridge Design

Fundamentals and Applications



Tim Huff

This book examines and explains material from the 9th edition of the AASHTO LRFD Bridge Design Specifications, including deck and parapet design, load calculations, limit states and load combinations, concrete and steel I-girder design, bearing design, and more. With increased focus on earthquake resiliency, two separate chapters— one on conventional seismic design and the other on seismic isolation applied to bridges— will fully address this vital topic. The primary focus is on steel and concrete I-girder bridges, with regard to both superstructure and substructure design.

CRC Press

August 2024 : 386pp

Pb: 978-1-032-20837-4 : £48.99

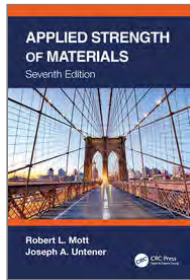
Hb: 978-1-032-20836-7 : £94.99

eBook: 978-1-003-26546-7

* For full contents and more information, visit: www.routledge.com/9781032208374

7TH EDITION

Applied Strength of Materials



Robert L. Mott University of Dayton, USA, **Joseph A. Untener** University of Dayton, USA

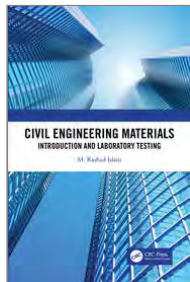
Introducing the theoretical background of the subject, with a strong visual component, the book equips the reader with problem-solving techniques. The updated seventh edition incorporates new technologies, with a pedagogical approach. It emphasizes realistic engineering applications for the analysis and design of structural members. A "Big Picture" section starts each chapter to help students grasp the overall objectives and their application in industrial applications. Step-by-step problem-solving approaches are included throughout the book. While calculus is used sparingly, detailed developments of important design-related formulas are provided.

CRC Press
July 2021 : 1172pp
Pb: 978-1-032-00222-4 : **£69.99**
Hb: 978-0-367-82078-7 : **£175**
eBook: 978-1-003-17320-5

* For full contents and more information, visit: www.routledge.com/9781032002224

Civil Engineering Materials

Introduction and Laboratory Testing



M. Rashad Islam

Civil Engineering Materials: Introduction and Laboratory Testing discusses the properties, characterization procedures, and analysis techniques of primary civil engineering materials. It presents the latest design considerations and uses of engineering materials as well as theories for fully understanding them through numerous worked mathematical examples. The book also includes important laboratory tests which are clearly described in a step-by-step manner and further illustrated by high-quality figures.

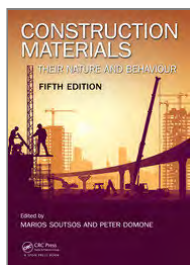
CRC Press
April 2020 : 490pp
Hb: 978-0-367-22482-0 : **£125**
eBook: 978-0-429-27511-1

* For full contents and more information, visit: www.routledge.com/9780367224820

5TH EDITION

Construction Materials

Their Nature and Behaviour, Fifth Edition



Edited by **Marios Soutsos**, **Peter Domone**

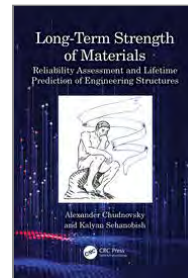
This classic textbook covers the fundamentals, chemical and physical structure, and behaviour of the main construction materials: metals, concrete, bricks and masonry, polymers, fibre composites, bituminous materials, timber, and glass. for civil and structural engineering students, and those on courses like architecture, surveying and construction Now with: 1. more questions with answers in the book, and also in an instructors manual, 2. much more on sustainability, 3. an extended and overhauled Masonry section, 4. website links to free reports.

CRC Press
October 2017 : 864pp
Pb: 978-1-498-74110-1 : **£66.99**
Hb: 978-1-138-50056-3 : **£165**
eBook: 978-1-315-16459-5

* For full contents and more information, visit: www.routledge.com/9781498741101

Long-Term Strength of Materials

Reliability Assessment and Lifetime Prediction of Engineering Structures



Alexander Chudnovsky University of Illinois at Chicago, USA, **Kalyan Sehanobish** The Dow Chemical Company, USA

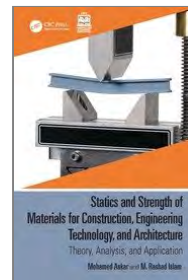
This textbook introduces the thermodynamics of irreversible processes along with entropy to address the time dependency of fracture. Working from observations of structural failure, the book identifies the principal failure types such as brittle damage and ductile failure. It then addresses the life of a structure in a specific environment and load condition, using irreversible thermodynamics and the entropy criterion to address cooperative fracture, and novel statistical fracture mechanics to address solo fracture. The book is ideal for graduate students and design engineers in civil and materials engineering, as well as mechanical and chemical engineering.

CRC Press
August 2023 : 224pp
Pb: 978-1-032-41813-1 : **£52.99**
Hb: 978-1-032-41814-8 : **£145**
eBook: 978-1-003-35984-5

* For full contents and more information, visit: www.routledge.com/9781032418131

Statics and Strength of Materials for Construction, Engineering Technology, and Architecture

Theory, Analysis, and Application



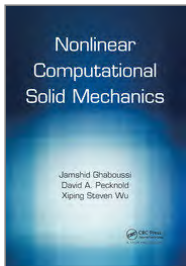
Mohamed Askar Southern Utah University, USA, **M. Rashad Islam**

This book provides students and industry professionals with the necessary statics and strength of materials background for more innovative approaches to particular fields of engineering technology, construction engineering and management, civil engineering, and architectural technology. It presents an introduction to statics, a review of algebra and trigonometry, concepts of vectors, a classification of building structural systems, an overview of related computer software, and the framework of the applications for real-world projects.

CRC Press
April 2024 : 700pp
Hb: 978-1-032-38902-8 : **£130**
eBook: 978-1-003-34737-8

* For full contents and more information, visit: www.routledge.com/9781032389028

Nonlinear Computational Solid Mechanics



Jamshid Ghaboussi , David A. Pecknold , Xiping Steven Wu

This book presents the fundamentals of nonlinear mechanics within a modern computational approach, building on both linear elasticity and the finite element method. It serves as a text book for a second year graduate course and as a reference for practitioners using nonlinear analysis in engineering and design. Both material and geometric nonlinearities are treated. The topics build up from the mechanics of finite deformation of solid bodies through to nonlinear structural behaviour such as buckling, bifurcation and snap-through. The principles are illustrated with a series of solved problems.

CRC Press

December 2019 : 396pp

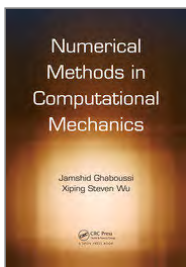
Pb: 978-0-367-87524-4 : **£51.99**

Hb: 978-1-498-74612-0 : **£115**

eBook: 978-1-315-16732-9

* For full contents and more information, visit: www.routledge.com/9780367875244

Numerical Methods in Computational Mechanics



Jamshid Ghaboussi University of Illinois at Urbana-Champaign, USA, **Xiping Steven Wu** Shell International Exploration & Production Inc., USA

This book suits a graduate course in mechanics based disciplines, and will help software developers in computational mechanics. It explores the numerical algorithms underpinning finite element software, covering all the major numerical methods used in computational mechanics. It reviews the basic concepts in linear algebra and advanced matrix theory, before covering solutions of systems of equations, symmetric eigenvalue solution methods, and direct integration of discrete dynamic equations of motion, illustrated with numerical examples.

CRC Press

June 2019 : 332pp

Pb: 978-0-367-02802-2 : **£35.99**

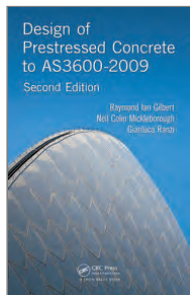
Hb: 978-1-498-74675-5 : **£94.99**

eBook: 978-1-315-36868-9

* For full contents and more information, visit: www.routledge.com/9780367028022

2ND EDITION

Design of Prestressed Concrete to AS3600-2009



Raymond Ian Gilbert University of New South Wales, Sydney, Australia, **Neil Colin Mickleborough** Hong Kong University of Science and Technology, Clear Water Bay, Kowloon, **Gianluca Ranzi** University of Sydney, Australia

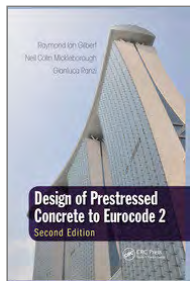
Retaining the clear and concise explanations and the easy-to-read style of the first edition, this book builds on the principles of mechanics and the properties of concrete and steel, with numerous worked examples. The scope of the work ranges from an introduction to the fundamentals of prestressed concrete to in-depth treatments of the more advanced topics in modern prestressed concrete structures. Where the design requirements are code specific, the book refers to the provisions of the Australian Standard for Concrete Structures (AS3600-2009).

CRC Press
September 2015 : 716pp
Pb: 978-1-466-57269-0 : **£86.99**
Hb: 978-1-138-47022-4 : **£200**
eBook: 978-0-429-10202-8

* For full contents and more information, visit: www.routledge.com/9781466572690

2ND EDITION

Design of Prestressed Concrete to Eurocode 2



Raymond Ian Gilbert University of New South Wales, Sydney, Australia, **Neil Colin Mickleborough** Hong Kong University of Science and Technology, Clear Water Bay, Kowloon, **Gianluca Ranzi** University of Sydney, Australia

This second edition retains the clear and concise explanations and the easy-to-read style of the first, but the content has been expanded and updated. The scope of the work ranges from an introduction to the fundamentals of prestressed concrete to the in-depth treatment of more advanced topics in modern prestressed concrete structures. Where code-specific, the book refers to Eurocode 2: Design of Concrete Structures and, where possible, the notation is the same as in Eurocode 2.

CRC Press
January 2019 : 699pp
Pb: 978-0-367-02791-9 : **£40.99**
Hb: 978-1-466-57310-9 : **£96.99**
eBook: 978-1-315-38952-3

* For full contents and more information, visit: www.routledge.com/9780367027919

FRP Composite Structures

Theory, Fundamentals, and Design



Hota V.S. GangaRao West Virginia University, USA, **Woraphot Prachasaree**

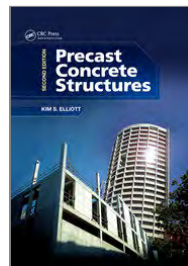
The focus of this textbook is to develop simplified mathematical models representing the behavior of beams and plates under static loads, after introducing generalized Hooke's Law for materials with different properties, i.e., anisotropic, orthotropic, transversely isotropic, and isotropic properties. Subsequently, the simplified models coupled with design methods including FRP composite material degradation factors are introduced by solving a wide range of practical design problems. This book is aimed at advanced undergraduate and graduate students and industry professionals focused on the analysis and design of FRP composite structural members.

CRC Press
October 2024 : 534pp
Pb: 978-1-032-05252-6 : **£48.99**
Hb: 978-1-032-05251-9 : **£125**
eBook: 978-1-003-19675-4

* For full contents and more information, visit: www.routledge.com/9781032052526

2ND EDITION

Precast Concrete Structures



Kim S. Elliott University of Nottingham, UK

This highly illustrated second edition of Precast Concrete Structures introduces the conceptual design ideas for the prefabrication of concrete structures and presents a number of worked examples that translate designs from BS 8110 to Eurocode EC2, before going into the detail of the design, manufacture, and construction of precast concrete multi-storey buildings. It provides complete specifications for the design, manufacture, and construction of precast frames according to Eurocodes, along with the author's guidance on best practice.

CRC Press
June 2019 : 732pp
Pb: 978-0-367-02803-9 : **£35.99**
Hb: 978-1-498-72399-2 : **£115**
eBook: 978-0-367-81488-5

* For full contents and more information, visit: www.routledge.com/9780367028039

Precast Prestressed Concrete for Building Structures



Kim S. Elliott University of Nottingham, UK, **Mark Magill** Creagh Concrete, UK

This guide to precast prestressed concrete (PSC) introduces and applies principles for the design of PSC slabs, thermal slabs, beam and block flooring and main beams, including cantilevers, and composite and continuous construction. It provides worked examples for a range of PSC elements and covers the innovative use of PSC on several projects in the UK over the past ten years, drawing on the authors' first-hand experience. The contents are in line with latest revisions of the Eurocodes and European Product Standards. The book is ideal for consulting structural engineers, clients, PSC manufacturers, and advanced undergraduate and graduate students, both as a guide and a textbook.

CRC Press
March 2024 : 638pp
Hb: 978-1-032-33391-5 : **£180**
eBook: 978-1-003-31945-0

* For full contents and more information, visit: www.routledge.com/9781032333915

2ND EDITION

Principles of Reinforced Concrete Design



Mete A. Sozen Purdue University, **Toshikatsu Ichinose** Nagoya Institute of Technology, **Santiago Pujol** Purdue University

This new edition presents a mixture of fundamentals along with practical methods and provides the basic concepts required for designing reinforced concrete (RC) structures, emphasizing principles based on mechanics, experience, and experimentation, while encouraging practitioners to consult their local building codes. This new edition includes updated material on slabs, ranging from pragmatic recommendations to detailed solutions based on mechanics and geometry. New examples, illustrations, and exercises have also been added to aid instructors and students. SI units have also been added to help broaden the reach of the book's coverage.

CRC Press
November 2025 : 346pp
Hb: 978-1-032-82682-0 : **£115**
eBook: 978-1-003-50564-8

* For full contents and more information, visit: www.routledge.com/9781032826820

2ND EDITION

Reinforced and Prestressed Concrete Design to EC2

The Complete Process, Second Edition



Eugene O'Brien University College, Dublin, Ireland,
Andrew Dixon Consulting Civil and Structural Engineer,
 Ireland, **Emma Sheils** University College, Dublin, Ireland

Revised to Eurocode 2, the second edition emphasises qualitative understanding of the overall behaviour of concrete structures. Expanded with a new chapter dedicated to case studies, worked examples and exercise examples, it is a comprehensive guide to conceptual design, analysis and detailed design of concrete structures for civil and structural engineering students. Selected Contents: Part 1: 1. Fundamentals of Qualitative Design 2. Basic Layout of Concrete 3. Loads and Load Effects Part 2: 4. Fundamentals of Structural Analysis 5. Applications of Structural Analysis to Concrete Structures 6. Preliminary Sizing of Members Part 3: 7. Design of Reinforced Concrete Members for Bending 8. Design of Prestressed Concrete Members for Bending 9. Combined Axial Force and Bending of Reinforced Concrete Members 10. Design for Shear

CRC Press

January 2012: 536pp

Pb: 978-0-415-57195-1 : **£60.99**Hb: 978-0-415-57194-4 : **£195**

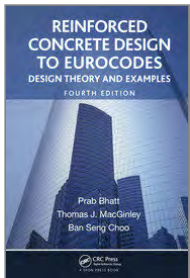
eBook: 978-1-315-27250-4

* For full contents and more information, visit: www.routledge.com/9780415571951

4TH EDITION

Reinforced Concrete Design to Eurocodes

Design Theory and Examples, Fourth Edition



Prab Bhatt University of Glasgow, UK, **T MacGinley**, **Ban Seng Choo**

This fourth edition of a bestselling textbook has been extensively rewritten and expanded in line with the current Eurocodes. It presents the principles of the design of concrete elements and of complete structures, with practical illustrations of the theory. It explains the background to the Eurocode rules and goes beyond the core topics to cover the design of foundations, retaining walls, and water retaining structures. The text includes more than sixty worked out design examples and more than six hundred diagrams, plans, and charts. It suitable for civil engineering courses and is a useful reference for practicing engineers.

CRC Press

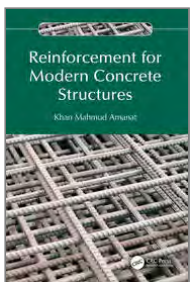
February 2014: 878pp

Pb: 978-1-466-55252-4 : **£72.99**Hb: 978-1-138-41400-6 : **£205**

eBook: 978-0-429-09644-0

* For full contents and more information, visit: www.routledge.com/9781466552524

Reinforcement for Modern Concrete Structures



Khan Mahmud Amanat

Reinforcement for Modern Concrete Structures provides readers with the foundational information on various properties and characteristics of the different types of rebar used in concrete structures. The book provides a sound background on modern reinforcing materials which is essential for engineers and designers. Civil and structural engineers will appreciate the fundamental information provided for selecting the appropriate kind of reinforcement for their structures and understand laboratory testing to determine the physical and mechanical properties of different types of reinforced concrete.

CRC Press

March 2025: 294pp

Hb: 978-1-032-95595-7 : **£96.99**

eBook: 978-1-003-58565-7

* For full contents and more information, visit: www.routledge.com/9781032955957

11TH EDITION

Reinforced Concrete Designer's Handbook



Charles E. Reynolds Late Consulting Engineer, UK,
James C. Steedman Consulting Engineer, UK, **Tony Threlfall** Consulting Engineer, UK

Reynolds's Reinforced Concrete Designer's Handbook is a unique resource providing comprehensive guidance enabling the engineer to analyze and design reinforced concrete buildings, bridges, retaining walls and containment structures.

CRC Press

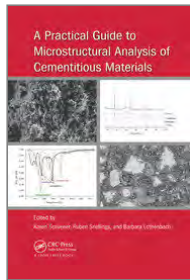
July 2007: 414pp

Pb: 978-0-419-25830-8 : **£83.99**Hb: 978-0-419-25820-9 : **£235**

eBook: 978-0-203-08775-6

* For full contents and more information, visit: www.routledge.com/9780419258308

A Practical Guide to Microstructural Analysis of Cementitious Materials



Edited by **K.L. Scrivener** École Polytechnique Fédérale de Lausanne, Switzerland, **Ruben Snellings** VITO, Mol, Belgium, **Barbara Lothenbach** EMPA, Dübendorf, Switzerland

This edited volume provides the cement science community with a state-of-the-art overview of analytical techniques used in cement chemistry to study the hydration and microstructure of cements. Each chapter focuses on a specific technique, not only describing the basic principles behind the technique, but also providing essential, practical details on its application to the study of cement hydration. Each chapter sets out present best practice, and draws attention to the limitations and potential experimental pitfalls of the technique.

CRC Press

July 2017 : 560pp

Pb: 978-1-138-74723-4 : **£80.99**

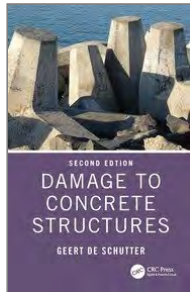
Hb: 978-1-498-73865-1 : **£225**

eBook: 978-1-351-22849-7

* For full contents and more information, visit: www.routledge.com/9781138747234

2ND EDITION

Damage to Concrete Structures



Geert De Schutter Ghent University, Belgium

Concrete can suffer from inappropriate design, errors during execution, mechanisms occurring during hardening, and actions or degradation mechanisms such as reinforcement corrosion, attacks on cement matrix and even aggregate deterioration. This revised textbook for students and reference for professionals now gives more on performance based approaches for durability design, rather than just a descriptive approach, and some focus on sustainability. A new chapter describes the risks related to valorization of secondary or waste materials in concrete. It is illustrated with numerous real-world examples and many drawings and photographs taken of actual structures.

CRC Press

May 2026 : 244pp

Pb: 978-1-032-91181-6 : **£62.99**

Hb: 978-1-032-91212-7 : **£96.99**

* For full contents and more information, visit: www.routledge.com/9781032911816

Historic Construction and Conservation

Materials, Systems and Damage



Pere Roca , Paulo B. Lourenço , Angelo Gaetani

Series: Assessment, Repair and Strengthening for the Conservation of Structures

This book brings together the history of construction, materials and structural elements, with the history of conservation. It explains structural decisions made during the construction process which underlies the damage and collapse mechanisms in masonry for different forms of loading. Excess permanent loading and settlement is differentiated from environmental and anthropogenic actions such as earthquake or incorrect intervention. The team of authors address the history of conservation by exploring materials and structures and the history of construction and damage. It is for civil engineering and architecture, as well as for archaeology and art history.

Routledge

June 2021 : 366pp

Pb: 978-1-032-09023-8 : **£50.99**

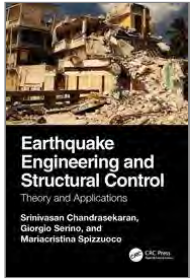
Hb: 978-0-367-14574-3 : **£87.99**

eBook: 978-0-429-05276-7

* For full contents and more information, visit: www.routledge.com/9781032090238

Earthquake Engineering and Structural Control

Theory and Applications



Srinivasan Chandrasekaran Indian Institute of Technology Madras, India, **Giorgio Serino** University of Naples Federico II, Italy, **Mariacristina Spizzuoco**

Earthquake Engineering and Structural Control: Theory and Applications examines the basics of structural dynamics with its application for earthquake engineering and structural control methods. The objective is not to explain earthquake resistant design but rather to present different methods of analysis under earthquake and other environmental loads such as fire and physical impact. While presenting fundamental concepts in a simple manner, the book presents structural systems and offshore structures leading to form-dominant design.

CRC Press

November 2024 : 432pp

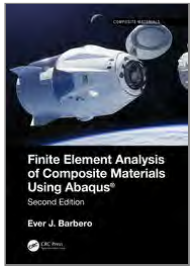
Hb: 978-1-032-78509-7 : **£87.99**

eBook: 978-1-003-54201-8

* For full contents and more information, visit: www.routledge.com/9781032785097

2ND EDITION

Finite Element Analysis of Composite Materials using Abaqus®



Ever J. Barbero , Ever J. Barbero West Virginia University, Morgantown, USA

Series: Composite Materials

Developed from the author's course on advanced mechanics of composite materials, Finite Element Analysis of Composite Materials with Abaqus™ shows how powerful finite element tools address practical problems in the structural analysis of composites. This Second Edition updates all examples, sample code, and problems to Abaqus 2020. Aimed at advanced students and professional engineers, this text features 60+ fully developed examples, 80+ end-of-chapter exercises, and 50+ pieces of Abaqus pseudo-code that illustrate solutions to example problems. A companion website offers relevant model files for download, enabling readers to easily reproduce the examples and complete the exercises.

CRC Press

May 2023 : 571pp

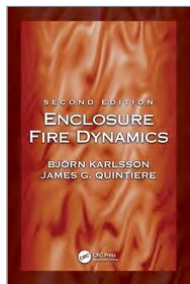
Hb: 978-0-367-62145-2 : £105

eBook: 978-1-003-10815-3

* For full contents and more information, visit: www.routledge.com/9780367621452

2ND EDITION

Enclosure Fire Dynamics, Second Edition



Björn Karlsson , James G. Quintiere University of Maryland, College Park, USA

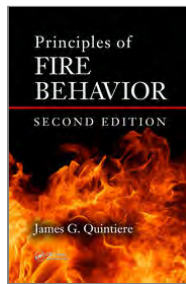
Enclosure Fire Dynamics, Second Edition explores the science of enclosure fires, and how they cause changes in the environment. The authors discuss mechanisms for controlling enclosure fires, and how to develop analytical relationships useful in designing buildings for fire safety. Derivation of equations from first principles is shown, stating assumptions and showing comparisons to experimental data.

CRC Press
January 2026 : 384pp
Pb: 978-1-032-28646-4 : **£49.99**
Hb: 978-1-138-05866-8 : **£140**
eBook: 978-1-315-16381-9

* For full contents and more information, visit: www.routledge.com/9781032286464

2ND EDITION

Principles of Fire Behavior



James G. Quintiere University of Maryland, College Park, USA

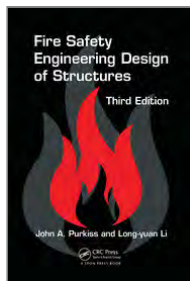
This text covers the four forms of fire: diffusion flames, smoldering, spontaneous combustion, and premixed flames. Using a quantitative approach, the text introduces the scientific principles of fire behavior, with coverage of heat transfer, ignition, flame spread, fire plumes, and heat flux as a damage variable. Cases, examples, problems, selected color illustrations and review of mathematics help students in fire safety and investigation understand fire from a scientific point of view.

CRC Press
August 2016 : 437pp
Hb: 978-1-498-73562-9 : **£140**
eBook: 978-1-315-36965-5

* For full contents and more information, visit: www.routledge.com/9781498735629

3RD EDITION

Fire Safety Engineering Design of Structures



John A. Purkiss Consulting Engineer, United Kingdom,
Long-Yuan Li University of Plymouth, UK

This third edition covers design concerns and philosophies, touches on regulatory control, the behavior of natural fires through to the properties of various engineering materials at elevated temperatures. Focusing on the fire sections of the Eurocodes, the book provides detailed design advice, together with the background for the main structural materials such as concrete, steel, composite steel-concrete, timber, masonry and aluminium. This third edition has significant updates of materials properties, calculations, and less 'standard' materials such as concrete filled tubes, masonry, plastics and glass.

CRC Press
March 2017 : 454pp
Pb: 978-1-138-07426-2 : **£86.99**
Hb: 978-1-466-58547-8 : **£235**
eBook: 978-0-429-10266-0

* For full contents and more information, visit: www.routledge.com/9781138074262

2ND EDITION

Fluid Mechanics Aspects of Fire and Smoke Dynamics in Enclosures



Bart Merci , Tarek Beji Ghent University, Belgium

This handbook at undergraduate and starting researcher level provides the essential knowledge for understanding flows in fire and smoke dynamics in enclosures, covering combustion, heat transfer and fire suppression in more detail than other introductory books. It moves from the basic equations for turbulent flows with combustion, through a discussion of the structure of flames, to fire and smoke plumes and their interaction with enclosure boundaries. This is then applied to fire dynamics and smoke and heat control in enclosures.

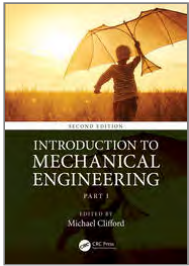
CRC Press
October 2022 : 354pp
Pb: 978-1-032-06584-7 : **£69.99**
Hb: 978-1-032-06887-9 : **£150**
eBook: 978-1-003-20437-4

* For full contents and more information, visit: www.routledge.com/9781032065847

2ND EDITION

Introduction to Mechanical Engineering

Part 1



Edited by **Michael Clifford** University of Nottingham, UK

An Introduction to Mechanical Engineering: Part 1, Second Edition, provides a grounding in the core subjects of solid mechanics, materials, fluid mechanics, thermodynamics, electronics, and machine design. Printed in color, this updated bestseller has a full range of learning features, and online resources available for both students and instructors.

CRC Press

December 2022 : 732pp

Pb: 978-0-367-33316-4 : **£62.99**Hb: 978-1-032-36232-8 : **£105**

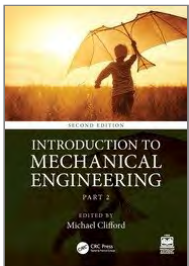
eBook: 978-0-429-31916-7

* For full contents and more information, visit: www.routledge.com/9780367333164

2ND EDITION

Introduction to Mechanical Engineering

Part 2



Edited by **Michael Clifford** University of Nottingham, UK

An Introduction to Mechanical Engineering Part 2, Second Edition is an essential text for all second-year undergraduate students and those studying for foundation degrees and HNDs. Building upon the first-year level topics in Introduction to Mechanical Engineering Part 1, Part 2 provides the next level of coverage for those subject areas.

CRC Press

November 2024 : 631pp

Pb: 978-0-367-33377-5 : **£59.99**Hb: 978-1-032-76021-6 : **£96.99**

eBook: 978-0-429-31949-5

* For full contents and more information, visit: www.routledge.com/9780367333775

4TH EDITION

Mechanical Engineering Principles



John Bird, Carl Ross Professor of Structural Dynamics, University of Portsmouth, UK

A student-friendly introduction to core mechanical engineering topics, focusing on examples and applications. The book contains 400 fully worked problems, 700 further problems with answers, and 300 multiple-choice questions. Two new chapters are included, covering the basic principles of matrix algebra and the matrix displacement method. The latter will also include guidance on software that can be used via SmartPhones, iPads or laptops. The new edition is up to date with the latest BTEC National specifications and can also be used on undergraduate courses in mechanical, civil, structural, aeronautical and marine engineering, and naval architecture.

Routledge

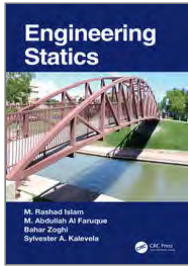
September 2019 : 388pp

Pb: 978-0-367-25324-0 : **£49.99**Hb: 978-0-367-25326-4 : **£195**

eBook: 978-0-429-28720-6

* For full contents and more information, visit: www.routledge.com/9780367253240

Engineering Statics



M. Rashad Islam , M. Abdullah Al Faruque , Bahar Zoghi , Sylvester A. Kalevela

Engineering Statics presents the cutting-edge topics in engineering statics, focusing on practical applications knowledge, with numerous real-world examples, practice problems, and case studies throughout. It covers theory concisely and uses plain language and coverage that can be completed in a one-semester course. It also covers the related concepts required to take the Fundamentals of Engineering (FE) exam.

CRC Press

August 2024 : 308pp

Pb: 978-0-367-56521-3 : **£48.99**

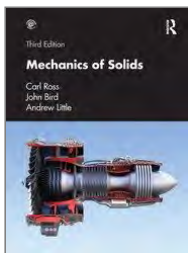
Hb: 978-0-367-56106-2 : **£125**

eBook: 978-1-003-09815-7

* For **full contents** and more information, visit: www.routledge.com/9780367565213

3RD EDITION

Mechanics of Solids



Carl Ross Professor of Structural Dynamics, University of Portsmouth, UK, **John Bird , Andrew Little**

This introduction to the behaviour of solid materials under loading, focuses on statics and stress analysis. As the primary recommended mechanics of solids text of the Council of Engineering Institutions for undergraduates, it covers practical stress and strain scenarios including simple stress and strain, torsion, bending, elastic failure and buckling, with examples such as thin-walled structures, beams, struts and composite structures. New chapters cover matrix algebra, fracture mechanics, and additional material considerations including creep and fatigue. The companion website offers solutions, and multiple-choice tests; and resources for adopting course instructors.

Routledge

November 2021 : 518pp

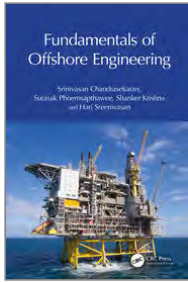
Pb: 978-0-367-65140-4 : **£66.99**

Hb: 978-0-367-65141-1 : **£170**

eBook: 978-1-003-12802-1

* For **full contents** and more information, visit: www.routledge.com/9780367651404

Fundamentals of Offshore Engineering



Srinivasan Chandrasekaran Indian Institute of Technology Madras, India, **Surasak Phoemsapthawee**, **Shanker Krishna**, **Hari Sreenivasan**

Fundamentals of Offshore Engineering addresses the basics of design for offshore oil and gas production systems, and examines the health, safety, environmental (HSE) aspects in the oil and gas industry with an emphasis towards safety measures in design and operations. It also covers fundamental issues of crude oil and natural gas exploration and extraction and also includes coverage of seismic surveys and green energy systems. Details of offshore platforms, describing the types, historical development, basics of analysis and design, environmental loads, and potential hazards are also provided.

CRC Press

October 2024 : 320pp

Hb: 978-1-032-80606-8 : **£99.99**

eBook: 978-1-003-49766-0

* For full contents and more information, visit: www.routledge.com/9781032806068

Offshore Semi-Submersible Platform Engineering



Srinivasan Chandrasekaran Indian Institute of Technology Madras, India

Offshore Semi-Submersible Platform Engineering presents a primer to the analysis and design of semi-submersible platforms in particular while also covering general analysis and design guidelines of offshore compliant platforms. It introduces general structural designs and also examines the details of the various environmental impacts that act upon them, such as fatigue, fire, collisions, and water waves.

CRC Press

August 2024 : 250pp

Pb: 978-0-367-67341-3 : **£52.99**

Hb: 978-0-367-67330-7 : **£125**

eBook: 978-1-003-13092-5

* For full contents and more information, visit: www.routledge.com/9780367673413

4TH EDITION

The Behaviour and Design of Steel Structures to EC3



Nick Trahair University of Sydney, Australia, **Mark A Bradford** University of New South Wales, Australia, **David Nethercot** Imperial College London, UK, **Leroy Gardner**

The fully revised fourth edition of this successful textbook fills a void which will arise when British designers start using the European steel code EC3 instead of the current steel code BS5950. Numerous worked examples illustrate the behaviour of steel structures and exemplify details of the design process. This is a key text for senior undergraduate and graduate students and an essential reference tool for practising structural engineers. 1. Introduction 2. Tension Members 3. Compression Members 4. Local Buckling of Thin Plate Elements 5. In-Plane Bending of Beams 6. Lateral Buckling of Beams 7. Beam-Columns 8. Frames 9. Joints 10. Torsion Members

CRC Press

November 2007 : 512pp

Pb: 978-0-415-41866-9 : **£66.99**Hb: 978-0-415-41865-2 : **£245**

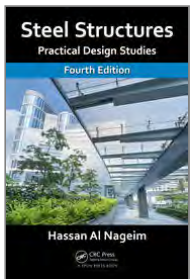
eBook: 978-1-315-27351-8

* For full contents and more information, visit: www.routledge.com/9780415418669

4TH EDITION

Steel Structures

Practical Design Studies, Fourth Edition



Hassan Al Nageim Liverpool John Moores University, UK

The fourth edition of this popular steel structures book contains references to both Eurocodes and British Standards. New and revised examples are included, and sections on the meaning, purpose, and limits of structural design, sustainable steel buildings, and energy savings have been updated. Initial chapters cover the essentials of structural engineering and structural steel design, with the remainder dedicated to a detailed examination of the analysis and design of selected types of structures, presenting complex designs in an understandable way.

CRC Press

December 2016 : 454pp

Pb: 978-1-482-26355-8 : **£72.99**Hb: 978-1-138-38175-9 : **£155**

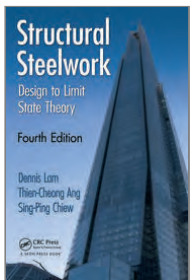
eBook: 978-1-315-38169-5

* For full contents and more information, visit: www.routledge.com/9781482263558

4TH EDITION

Structural Steelwork

Design to Limit State Theory, Fourth Edition



Dennis Lam , Thien Cheong Ang Formerly Nanyang Technological University, Singapore, **Sing-Ping Chiew** Nanyang Technological University, Singapore

The fourth edition of a perennial bestseller, this book describes the design theory and code requirements for common structures, connections, elements and frames and contains detailed explanations of the principles underlying steel design for final year undergraduate students reading structural and civil engineering. The chapters have been updated and rearranged to comply with with Eurocode 3. It includes theory for students and practical information for those currently working in the field who require an introduction to the Eurocodes. Every topic is illustrated with fully worked examples, and problems are also provided for practice.

CRC Press

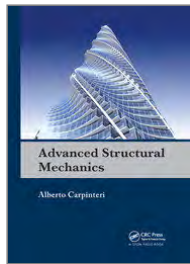
September 2013 : 378pp

Pb: 978-0-415-53191-7 : **£62.99**

eBook: 978-1-315-27529-1

* For full contents and more information, visit: www.routledge.com/9780415531917

Advanced Structural Mechanics



Alberto Carpinteri

Building on the author's Structural Mechanics Fundamentals, this text presents a complete and uniform treatment of the more advanced topics in structural mechanics, ranging from beam frames to shell structures, from dynamics to nonlinear analysis, from fracture mechanics to long-span and high-rise civil structures. Topics include: plane frames, statically indeterminate beam systems: Method of displacements, shells and membranes, finite element method, dynamics of discrete systems, dynamics of continuous systems, instability of elastic equilibrium, theory of plasticity, plane stress and plane strain conditions, mechanics of fracture, long-span structures, and high-rise buildings.

CRC Press

December 2019 : 548pp

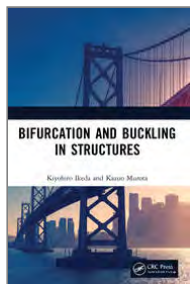
Pb: 978-0-367-86473-6 : **£51.99**

Hb: 978-0-415-58037-3 : **£175**

eBook: 978-1-315-37529-8

* For full contents and more information, visit: www.routledge.com/9780367864736

Bifurcation and Buckling in Structures



Kiyohiro Ikeda Tohoku University, Japan, **Kazuo Murota** Tokyo Metropolitan University, Japan

This textbook describes theory and analysis of bifurcation and buckling in structures. Emphasis is placed on a general procedure for solving nonlinear governing equations and an analysis procedure related to finite-element method. It presents fundamental issues such as the general mathematical framework for bifurcation and buckling, procedures for the buckling load/mode analyses, and numerical analysis procedures to trace the solution curves and switch to bifurcation solutions. It also explores buckling of perfect and imperfect structures. It is ideal for undergraduate and graduate students in engineering and applied mathematics.

CRC Press

December 2021 : 278pp

Pb: 978-0-367-63160-4 : **£89.99**

Hb: 978-0-367-63161-1 : **£205**

eBook: 978-1-003-11236-5

* For full contents and more information, visit: www.routledge.com/9780367631604

Collision Actions on Structures



Arnold C.Y. Yong Research Fellow, Malaysia, **Nelson T.K. Lam** University of Melbourne, Australia, **Scott J. Menegon** Swinburne University of Technology, Australia

This book is concerned with collision of a moving, fallen or flying object on a rigid barrier or a structural element, and the transmission of the transient action to the rest of a structural system. Engineers typically have little to draw on for analysis and design. Modelling software, such as FEM, is challenging to use effectively, physical experimentation is costly, and there is little or no regulatory documentation. This textbook for graduate students and guide for practitioners sets out solid principles and much of the methodology conveyed in the book has been validated experimentally.

CRC Press

November 2024 : 378pp

Pb: 978-0-367-67830-2 : **£48.99**

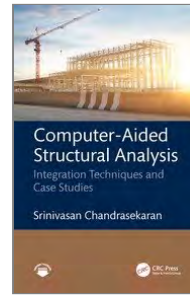
Hb: 978-0-367-67817-3 : **£115**

eBook: 978-1-003-13303-2

* For full contents and more information, visit: www.routledge.com/9780367678302

Computer-Aided Structural Analysis

Integration Techniques and Case Studies



Srinivasan Chandrasekaran Indian Institute of Technology Madras, India

Computer-Aided Structural Analysis offers a novel and comprehensive approach to teaching advanced structural analysis using computer programming, specifically through MATLAB®. By focusing on developing fundamental programming skills, this book encourages learners to move beyond the "black box" mentality of commercial software. The inclusion of real-world examples, clear explanations, and practical tutorials ensures students gain not only theoretical knowledge but also the confidence to design their own programs for specialized applications.

CRC Press

September 2025 : 336pp

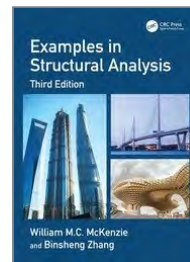
Hb: 978-1-041-07159-4 : **£96.99**

eBook: 978-1-003-63915-2

* For full contents and more information, visit: www.routledge.com/9781041071594

3RD EDITION

Examples in Structural Analysis



William M.C. McKenzie Napier University, Edinburgh, **Binsheng Zhang**

This comprehensive and extensive collection of fully worked and graded examples shows how to analyse different types of structure and the principal analysis techniques in the design process. Its use is illustrated using examples in a step-by-step approach, and where appropriate, detailed mathematical concepts are explained and integrated. The scope is wide, and this new edition includes pin-jointed frames and arches and cables, with more on the direct stiffness method and influence lines for beams. It is for undergraduates from first to final years on civil/structural, building and architecture courses, and it can be used internationally as it is not dependent on design codes.

CRC Press

December 2022 : 970pp

Pb: 978-1-032-04936-6 : **£72.99**

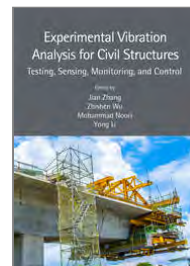
Hb: 978-1-032-04937-3 : **£185**

eBook: 978-1-003-19524-5

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Experimental Vibration Analysis for Civil Structures

Testing, Sensing, Monitoring, and Control



Edited by Jian Zhang, Zhishen Wu, Mohammad Noori California Polytechnic State University San Luis Obispo, USA, **Yong Li**

Series: Resilience and Sustainability in Civil, Mechanical, Aerospace and Manufacturing Engineering Systems

Experimental Vibration Analysis for Civil Structures: Testing, Sensing, Monitoring, and Control covers a wide range of topics in the areas of vibration testing, instrumentation, and analysis of civil engineering and critical infrastructure. It explains how recent research, development, and applications in experimental vibration analysis of civil engineering structures have progressed significantly due to advancements in the fields of sensor and testing technologies, instrumentation, data acquisition systems, computer technology, computational modeling and simulation of large and complex civil infrastructure systems.

CRC Press

August 2024 : 610pp

Pb: 978-0-367-54773-8 : **£48.99**

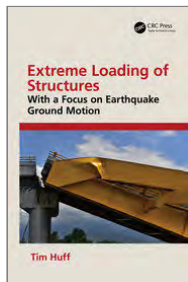
Hb: 978-0-367-54746-2 : **£125**

eBook: 978-1-003-09056-4

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Extreme Loading of Structures

With a Focus on Earthquake Ground Motion



Tim Huff

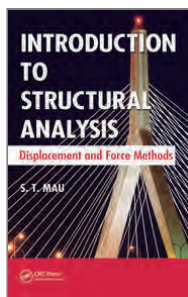
Extreme Loading of Structures serves as a valuable resource for graduate studies or as a reference for practicing engineers and covers various topics including tornado and tornado-generated missiles, vehicular collision, vessel collision, blast, ice load, earthquakes and more. While focusing mainly on extreme loadings from earthquakes and related ground motion, analytical procedures to assess the effects of other extreme loads on structures are included as well. In addition, national design standards and other design specifications are referenced and used throughout the text.

CRC Press
April 2025 : 216pp
Hb: 978-1-032-88548-3 : £115
eBook: 978-1-003-53836-3

* For full contents and more information, visit: www.routledge.com/9781032885483

Introduction to Structural Analysis

Displacement and Force Methods



S. T. Mau California State University, Northridge, USA

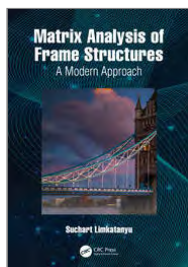
This indispensable textbook is designed to bridge the gap between engineering practice and education. Acknowledging the fact that virtually all computer structural analysis programs are based on the matrix displacement method of analysis, the author begins with the displacement method and then introduces the force method of analysis. The book also shows how these methods are applied, particularly to trusses and to beams and rigid frames. Other topics covered include influence lines, non-prismatic members, composite structures, secondary stress analysis, and the limits of linear and static structural analysis.

CRC Press
April 2012 : 328pp
Hb: 978-1-466-50416-5 : £140
eBook: 978-0-429-09617-4

* For full contents and more information, visit: www.routledge.com/9781466504165

Matrix Analysis of Frame Structures

A Modern Approach



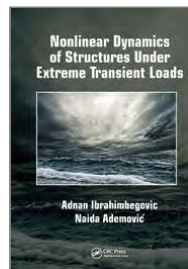
Suchart Limkatanyu

Advancing computer technology has created new opportunities for sophisticated assessment and analysis of structural performance, especially using matrix and finite element methods. This textbook for senior undergraduates and graduate students covers the fundamentals required in any approach to structural analysis, strong form, equilibrium, and compatibility, and with an introduction to virtual work principles to express equilibrium and compatibility conditions of a frame structure, making use of Tonti diagrams. It then sets out in more detail the matrix approach to structural analysis, including construction of the master stiffness matrix.

CRC Press
September 2025 : 386pp
Pb: 978-1-032-97666-2 : £62.99
Hb: 978-1-032-97792-8 : £140
eBook: 978-1-003-59545-8

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Nonlinear Dynamics of Structures Under Extreme Transient Loads



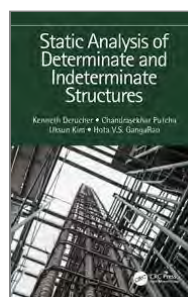
Adnan Ibrahimbegovic, Naida Ademovic

The book covers model building for different engineering structures and provides detailed presentations of extreme loading conditions. A number of illustrations are given: quantifying a plane crash or explosion induced impact loading, quantifying the effects of strong earthquake motion, quantifying the impact and long-duration effects of strong stormy winds - along with a relevant framework for using modern computational tools. The book considers the levels of reserve in existing structures, and ways of reducing the negative impact of high-risk situations by employing sounder design procedures.

CRC Press
December 2020 : 252pp
Pb: 978-0-367-72878-6 : £50.99
Hb: 978-1-138-03541-6 : £150
eBook: 978-1-351-05250-4

* For full contents and more information, visit: www.routledge.com/9780367728786

Static Analysis of Determinate and Indeterminate Structures



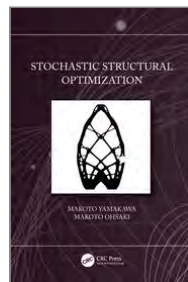
Kenneth Derucher, Chandrasekhar Putcha, Uksun Kim, Hota V.S. GangaRao West Virginia University, USA

This book presents students with the key fundamental elements of structural analysis and covers as much material as is needed for a single-semester course, allowing for a full understanding of indeterminate structural analysis methods without being overwhelming. Authored by four full professors of engineering, this class-tested approach is more practical and focused than what's found in other existing structural analysis titles, and therefore more easily digestible and accessible.

CRC Press
August 2024 : 202pp
Pb: 978-1-032-15990-4 : £48.99
Hb: 978-1-032-15982-9 : £94.99
eBook: 978-1-003-24663-3

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Stochastic Structural Optimization



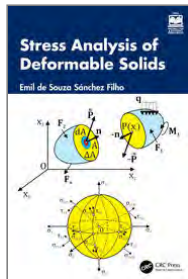
Makoto Yamakawa, Makoto Ohsaki Tokyo University of Science, Kyoto University, Japan

This presents a comprehensive picture of robust design optimization of structures, focused on nonparametric stochastic-based methodologies. Linking structural optimization with both reliability-based design (which usually incorporates assumptions on probability functions which are often unknown), and with robust design (offering simplicity and a lower level of sensitivity) through a unified framework of non-parametric stochastic methodologies provides a rigorous theoretical background and high level of practicality. This text shows how to use this theoretical framework in civil and mechanical engineering practice to design a safe structure which takes account of uncertainty.

CRC Press
July 2025 : 266pp
Pb: 978-0-367-72040-7 : £52.99
Hb: 978-0-367-72039-1 : £97.99
eBook: 978-1-003-15316-0

* For full contents and more information, visit: www.routledge.com/9780367720407

Stress Analysis of Deformable Solids



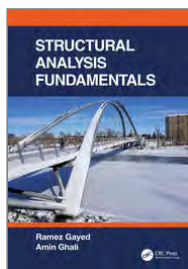
Emil de Souza Sánchez Filho

This comprehensive textbook presents fundamental concepts and detailed analysis of stress analysis in homogeneous and isotropic solids using a tensor approach. The text uniquely formulates mathematical approaches in terms of stress tensor invariants and its component tensors: hydrostatic tensor and deviator tensor. All expressions are derived in the form of Cartesian tensors, with detailed step-by-step deductions and complete demonstrations, ensuring no steps are omitted in obtaining or proving results. The book targets postgraduate as well as advanced undergraduate students in Civil, Mechanical, and Materials Engineering programs.

CRC Press
April 2026 : 242pp
Hb: 978-1-041-13196-0 : **£96.99**
eBook: 978-1-003-66857-2

* For full contents and more information, visit: www.routledge.com/9781041131960

Structural Analysis Fundamentals



Ramez Gayed Thyssenkrupp Industrial Solutions, Canada
Amin Ghali University of Calgary, Alberta, Canada

This covers all that is taught in graduate and undergraduate courses in the analysis required for of structural design, including the calculation of internal forces induced by different loads. Engineers need a broad sense of structural behaviour under different loading and have to be able to make intuitive checks of computing results. It applies linear analysis of structures of all types, including plane and space trusses, plane and space frames, plane and eccentric grids, plates and shells, and assemblage of finite-elements. It also treats plastic and time-dependent responses of structures to static loading and dynamic analysis of structures.

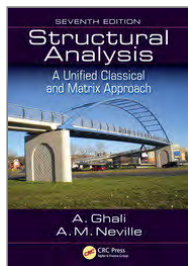
CRC Press
September 2021 : 680pp
Pb: 978-0-367-25261-8 : **£55.99**
Hb: 978-0-367-25262-5 : **£140**
eBook: 978-0-429-28685-8

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7TH EDITION

Structural Analysis

A Unified Classical and Matrix Approach, Seventh Edition



Amin Ghali University of Calgary, Alberta, Canada, **A.M. Neville**

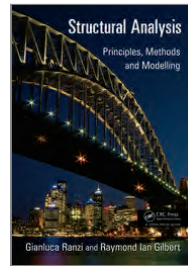
This comprehensive textbook is widely used by civil and structural engineering lecturers and students because of its clear and thorough style and content. Independent of codes of practice, the book is used internationally, regardless of the adopted system of units. This new edition updates and enhances the introductory background material, expands the coverage of structural dynamics, covers modern structural analysis techniques employed in the design of earthquake-resistant structures, and provides new worked examples and problems with answers.

CRC Press
September 2017 : 962pp
Pb: 978-1-498-72506-4 : **£72.99**
Hb: 978-1-138-37374-7 : **£140**
eBook: 978-1-315-26693-0

* For full contents and more information, visit: www.routledge.com/9781498725064

Structural Analysis

Principles, Methods and Modelling



Gianluca Ranzi University of Sydney, Australia,
Raymond Ian Gilbert University of New South Wales, Sydney, Australia

Combining a user-friendly, practical approach along with detailed derivations and mathematical background, this textbook is heavily supported by downloadable MATLAB® files and contains a wealth of resources for lecturers. Many worked examples walk students through the methods and give them insight into creating analytical models. The book also challenges students to consider specific aspects of the material in more detail as well as extend the methods provided to other problems.

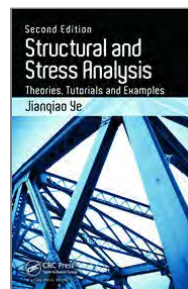
CRC Press
July 2014 : 576pp
Pb: 978-0-415-52644-9 : **£94.99**
eBook: 978-1-315-27518-5

* For full contents and more information, visit: www.routledge.com/9780415526449

2ND EDITION

Structural and Stress Analysis

Theories, Tutorials and Examples, Second Edition



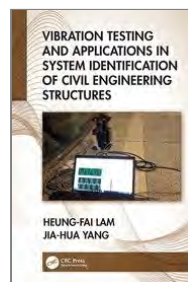
Jianqiao Ye Lancaster University, United Kingdom

Structural and stress analysis is a core topic in a range of engineering disciplines. This novel textbook provides and supports a conceptual understanding of the theories and formulae. It also focuses on the basic principles, emphasizing problem solving through a structured series of tutorials and problems, and encourages both numerical and conceptual approaches. This new edition includes basic plates and shells and plastic deformation, dynamics and portal frames and arches.

CRC Press
December 2015 : 278pp
Pb: 978-1-482-22033-9 : **£94.99**
Hb: 978-1-138-37370-9 : **£155**
eBook: 978-0-429-17008-9

* For full contents and more information, visit: www.routledge.com/9781482220339

Vibration Testing and Applications in System Identification of Civil Engineering Structures



Heung-Fai Lam City University of Hong Kong, **Jia-Hua Yang** Tongji University, China

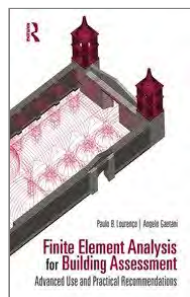
This book covers vibration testing and identification of dynamic structural systems: structural dynamics, methods of modal analysis and model identification, vibration testing with a detailed measurement system, software, practical applications, and case studies of full-scale structures. It gives Masters students the theories of system identification and empowers them to apply this in practice.

CRC Press
December 2024 : 424pp
Pb: 978-1-032-29839-9 : **£55.99**
Hb: 978-1-138-33288-1 : **£155**
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Finite Element Analysis for Building Assessment

Advanced Use and Practical Recommendations



Paulo B. Lourenço University of Minho, Portugal,
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Series: Assessment, Repair and Strengthening for the Conservation of Structures

Finite element analysis is one of the most powerful tools for modelling a structure, and the interaction of the geometry and morphology of its elements, the material properties, actions, existing alterations and damage, and soil-structure interaction. This presents the Finite Element Method, then nonlinearities are defined from a computational point of view, whether of geometry or materials. It provides advises the material properties to be adopted in the analyses, and is illustrated with cases studies of existing buildings. It suits engineering and architecture students with a solid background in structural engineering, as well as professionals and early-stage researchers.

Routledge

May 2022 : 422pp

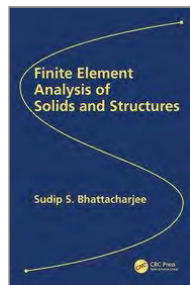
Pb: 978-1-032-22839-6 : **£75.99**

Hb: 978-0-367-35767-2 : **£170**

eBook: 978-0-429-34156-4

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Finite Element Analysis of Solids and Structures



Sudip S. Bhattacharjee

This textbook combines the theory of elasticity (advanced analytical treatment of stress analysis problems) and finite element methods (numerical details of finite element formulations) into one academic course derived from author's teaching, research, and applied work in automotive product development as well as in civil structural analysis. This work contains 12 discrete chapters that can be covered in a single semester university graduate course on linear elastic finite element analysis methods. The book also serves as a reference for practicing engineers working on design assessment and analysis of solids and structures.

CRC Press

October 2024 : 340pp

Pb: 978-1-032-04158-2 : **£48.99**

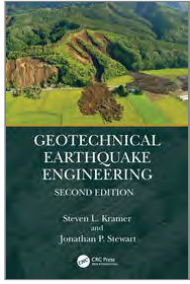
Hb: 978-0-367-43705-3 : **£125**

eBook: 978-1-003-02784-3

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2ND EDITION

Geotechnical Earthquake Engineering



Steven L. Kramer University of Washington, USA,
Jonathan P. Stewart University of California Los Angeles, USA

This fully-updated new edition provides an introduction to geotechnical earthquake engineering to first-time readers (typically first-year graduate students) with a level of detail that will be useful to more advanced students, as well as researchers and practitioners. It covers the topic of geotechnical earthquake engineering beginning with an introduction to seismology and earthquake ground motions. It also includes hazard analysis and performance-based earthquake engineering design and dynamic soil properties. These topics are followed by site response and its analysis and soil-structure interaction.

CRC Press

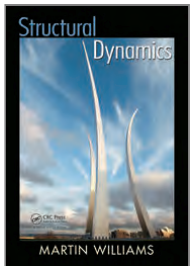
November 2024 : 1060pp

Hb: 978-1-032-84274-5 : £115

eBook: 978-1-003-51201-1

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Structural Dynamics



Martin Williams University of Oxford, UK

A short, accessible introduction to structural dynamics, this book covers linear analysis of single (SDOF) and multi-degree-of-freedom (MDOF) systems, under free vibration and in response to a variety of forcing functions. It touches on hand analysis of continuous systems to illustrate key principles and discusses methods of calculation of non-linear dynamic response. Lastly, it presents the key principles of random vibration analysis – this approach is crucial for wind engineering and is increasingly important for other load cases.

CRC Press

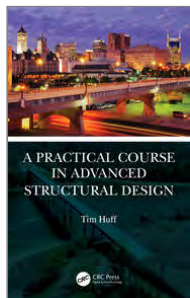
April 2016 : 283pp

Pb: 978-0-415-42732-6 : £49.99

eBook: 978-1-315-37531-1

* For full contents and more information, visit: www.routledge.com/9780415427326

A Practical Course in Advanced Structural Design



Tim Huff

This book is written from the perspective of a practicing engineer with over 35 years of experience now working in the academic world to pass on lessons learned over the course of a structural engineering career. It covers the essential topics that will enable beginning structural engineers to gain an advanced understanding prior to entering the workforce, as well as those topics which may receive little, or no, attention in a typical undergraduate curriculum.

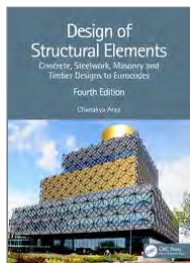
CRC Press
August 2024 : 338pp
Pb: 978-0-367-74668-1 : **£48.99**
Hb: 978-0-367-74666-7 : **£125**
eBook: 978-1-003-15899-8

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4TH EDITION

Design of Structural Elements

Concrete, Steelwork, Masonry and Timber Designs to Eurocodes



Chanakya Arya University College, London

This is a concise introduction to the design of structural elements in concrete, steel, timber, masonry and composites. It provides design principles and guidance in line with Eurocodes, current as of 2021. Topics include the philosophy of design, sustainable development, basic structural concepts, and material properties. The chapters encompass numerous diagrams and worked examples on design in reinforced concrete, structural steelwork and steel/concrete composites, masonry and timber based on EN 1990-1997. Elements considered cover reinforced concrete and composite floors, isolated foundation, cantilever retaining wall, load-bearing and panel walls, stud wall and connections.

CRC Press
May 2022 : 520pp
Pb: 978-1-032-07631-7 : **£52.99**
Hb: 978-1-032-07632-4 : **£140**
eBook: 978-1-003-20803-7

* For full contents and more information, visit: www.routledge.com/9781032076317

Drift-Driven Design of Buildings

Mete Sozen's Works on Earthquake Engineering



Santiago Pujol, Ayhan Irfanoglu, Aishwarya Puranam

This book summarizes the most essential concepts that every engineer designing a new building or evaluating an existing structure should consider to control the damage caused by drift (deformation) induced by earthquakes. It presents the work on earthquake engineering done by Dr. Mete Sozen and dozens of his collaborators and students over decades of experimentation, analysis, and reconnaissance. Many of the concepts produced through this work are integral part of earthquake engineering today.

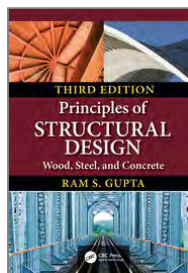
CRC Press
October 2024 : 318pp
Pb: 978-1-032-25178-3 : **£48.99**
Hb: 978-1-032-24657-4 : **£94.99**
eBook: 978-1-003-28193-1

* For full contents and more information, visit: www.routledge.com/9781032251783

3RD EDITION

Principles of Structural Design

Wood, Steel, and Concrete, Third Edition



Ram S. Gupta Roger Williams University, Bristol, Rhode Island, USA

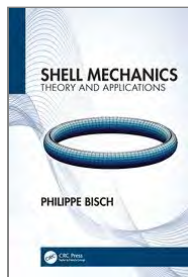
Timber, steel, and concrete are common engineering materials used in structural design. Material choice depends upon the type of structure, availability of material, and the preference of the designer. The design practices the code requirements of each material are very different. In this updated edition, the elemental designs of individual components of each material are presented, together with theory of structures essential for the design. Numerous examples of complete structural designs have been included. A comprehensive database comprising materials properties, section properties, specifications, and design aids, has been included to make this essential reading.

CRC Press
June 2019 : 617pp
Hb: 978-1-138-49353-7 : **£130**
eBook: 978-1-351-02770-0

* For full contents and more information, visit: www.routledge.com/9781138493537

Shell Mechanics

Theory and Applications



Philippe Bisch Ecole des Ponts ParisTech, France

This book is devoted to shells, a natural or human construction, whose modelling as a structure was particularly developed during the 20th century, leading to current numerical models. It highlights the very strong link between the deformation of geometric surfaces and the mechanics of shells. The book is based on the knowledge acquired by the reader in structural mechanics and provides the necessary information on the geometry of surfaces. It is particularly aimed at students in the fields of engineering using mechanics, as well as professionals wishing to deepen their knowledge of shells.

CRC Press
September 2025 : 562pp
Pb: 978-1-032-45171-8 : **£62.99**
Hb: 978-1-138-31059-9 : **£150**
eBook: 978-0-429-44040-3

* For full contents and more information, visit: www.routledge.com/9781032451718

Structural Design Against Deflection



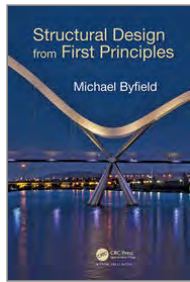
Tianjian Ji The University of Manchester, United Kingdom

This presents qualitative relationships between internal forces and deflection and demonstrates principles and measures for designing structures against deflection in order to achieve more effective, efficient and elegant structures. Hand calculations and other practical examples are given for undergraduates and practising structural engineers and architects.

CRC Press
March 2020 : 210pp
Pb: 978-0-367-89793-2 : **£75.99**
Hb: 978-1-138-61098-9 : **£150**
eBook: 978-0-429-46531-4

* For full contents and more information, visit: www.routledge.com/9780367897932

Structural Design from First Principles



Michael Byfield

This undergraduate civil engineering textbook explains structural design from its mechanical principles rather than design codes. It presents good approximate solutions to complex design problems, such as "Wembley-Arch" type structures, the design of thin-walled structures, and long-span box girder bridges. These relatively simple techniques enable quick, early stage, "ball-park" design solutions, and are also useful for checking finite element analysis solutions to complex problems. It is consistent with the Eurocodes, but with the underlying theory fully explained. Explanation is closely linked to a structured series of worked examples at the end of each section

CRC Press

February 2018 : 335pp

Pb: 978-1-498-74121-7 : **£55.99**

Hb: 978-1-138-50349-6 : **£155**

eBook: 978-1-315-11691-4

* For full contents and more information, visit: www.routledge.com/9781498741217

3RD EDITION

Structural Engineer's Pocket Book: Eurocodes



Fiona Cobb Consulting Engineer, UK

Now in its third edition, this book forms a comprehensive pocket reference guide for professional and student structural engineers, especially those taking the IStructE Part 3 exam. With stripped-down basic material—tables, data, facts, formulae, and rules of thumb—it is directly usable for scheme design by structural engineers in the office, in transit, or on site. It brings together data from many different sources, and delivers a compact source of job-simplifying and time-saving information at an affordable price.

CRC Press

November 2014 : 464pp

Pb: 978-0-080-97121-6 : **£41.99**

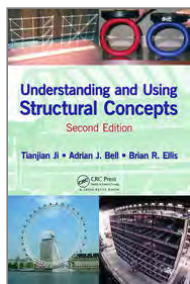
Hb: 978-1-138-47018-7 : **£210**

eBook: 978-0-429-18490-1

* For full contents and more information, visit: www.routledge.com/9780080971216

2ND EDITION

Understanding and Using Structural Concepts



Tianjian Ji The University of Manchester, United Kingdom, **Adrian J. Bell** The University of Manchester, United Kingdom, **Brian R. Ellis** Retired from Building Research Establishment Ltd., UK

This book focuses on the understanding and use of structural concepts, with numerous demonstrations using physical models and practical examples. It connects abstract theory and demonstrates the application of the concepts. This new edition considers the relationships between static and dynamic problems, experimental and theoretical studies, and theory and practice. It suits a range of students in civil and structural engineering, including graduates as well as the more technically-minded architecture students and practicing engineers.

CRC Press

December 2015 : 394pp

Pb: 978-1-498-70729-9 : **£76.99**

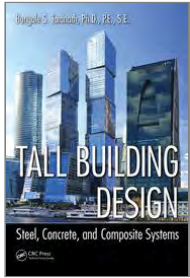
Hb: 978-1-138-47019-4 : **£205**

eBook: 978-0-429-17215-1

* For full contents and more information, visit: www.routledge.com/9781498707299

Tall Building Design

Steel, Concrete, and Composite Systems



Bungale S. Taranath Chino Hills, California, USA

This book examines the behavior of structural members and systems to aid in the structural design of tall buildings in conjunction with the latest building codes. These code provisions are subject to change periodically. Familiarity with current methodologies is essential to designing structures that comply with legally adapted standards in a safe, economic, and efficient manner. However, the first nine chapters explain the fundamental principles of structural engineering in such a manner as to be entirely independent of code regulations.

CRC Press

July 2016 : 872pp

Hb: 978-1-466-55620-1 : **£195**

eBook: 978-1-315-37446-8

* For full contents and more information, visit: www.routledge.com/9781466556201

Fundamentals of Structural Engineering

A Problem-Based Approach



Tanvir Mustafy Military Inst. of Science and Tech, BD

This book provides an introduction to the principles of structural engineering using a problem-based approach. It covers the basic concepts of structural analysis and design, including statics, strength of materials, and mechanics of materials. The text emphasizes the application of these principles to real-world structural engineering problems and includes numerous example problems and case studies to illustrate key concepts. The problem-based approach helps students develop their problem-solving skills, critical thinking abilities, and intuition for structural engineering.

CRC Press

December 2024 : 570pp

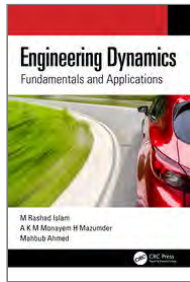
Hb: 978-1-032-63805-8 : **£105**

eBook: 978-1-032-63807-2

* For full contents and more information, visit: www.routledge.com/9781032638058

Engineering Dynamics

Fundamentals and Applications



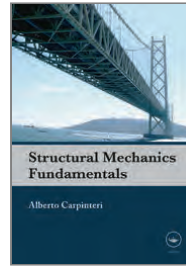
M Rashad Islam, A K M Monayem H Mazumder, Mahbub Ahmed

This textbook is intended for the first course of engineering dynamics for undergraduate students. Engineering dynamics is a rigorous topic that typically involves the intensive use of vector mathematics and calculus. This book, however, uses plain language with less vector mathematics and calculus to introduce these topics of mathematics to students with a high school physics background. Numerous practical examples are provided with their step-by-step worked out solutions, as well as case studies to reflect the interests of new engineering and applied engineering students.

CRC Press
November 2024 : 276pp
Pb: 978-1-032-25561-3 : **£48.99**
Hb: 978-1-032-25557-6 : **£125**
eBook: 978-1-003-28395-9

* For full contents and more information, visit: www.routledge.com/9781032255613

Structural Mechanics Fundamentals



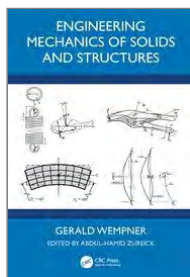
Alberto Carpinteri

Offering a complete and uniform treatment of the most fundamental and essential topics in structural mechanics, this book presents a traditional subject in an updated and modernized way. It merges classical topics with ones that have taken shape more recently, such as duality. The book covers the mechanics of linear elastic solids, the theory of beam systems, and the phenomena of structural failure. A text for senior undergraduate and graduate students in structural engineering and architecture, it is also a valuable reference for practicing engineers and researchers.

CRC Press
September 2013 : 512pp
Pb: 978-0-415-58032-8 : **£66.99**
Hb: 978-1-138-58076-3 : **£175**
eBook: 978-1-315-27252-8

* For full contents and more information, visit: www.routledge.com/9780415580328

Engineering Mechanics of Solids and Structures

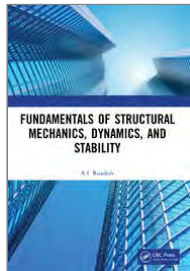


Gerald Wempner Georgia Institute of Technology (retired), Atlanta, USA, **Abdul-Hamid Zureick**

This textbook for advanced students in aerospace, mechanical, and civil engineering sets out the underlying concepts, methods, and theories. As well as giving the Newtonian approach to motion and equilibrium, it offers the Lagrangean criteria of work and energy as the most effective means to formulate finite elements and other discrete approximations. Thorough mathematics demonstrates the limitations of the approximations and provides the tools for more precise analyses. This can then be applied to a broad spectrum of structural and mechanical components – the analysis and design of a dome or a bridge, the hull of a ship or a spacecraft, or the mechanical component of an engine.

CRC Press
June 2026 : 650pp
Hb: 978-1-041-12570-9 : **£130**
* For full contents and more information, visit: www.routledge.com/9781041125709

Fundamentals of Structural Mechanics, Dynamics, and Stability



A.I. Rusakov Rostov State Transport University, Rostov-na-Donu, Russia Federation

Fundamentals of Structural Mechanics, Dynamics, and Stability examines structural mechanics from a foundational point of view and allows students to use logical inference and creative reasoning to solve problems versus rote memorization. It presents underlying theory and emphasizes the relevant mathematical concepts as related to structural mechanics in each chapter. Problems, examples, and case studies are provided throughout, as well as simulations to help further illustrate the content.

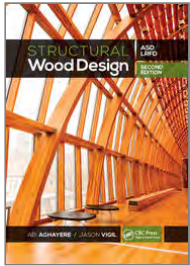
CRC Press
September 2023 : 468pp
Pb: 978-0-367-61694-6 : **£67.99**
Hb: 978-1-498-77042-2 : **£185**
eBook: 978-0-429-15529-1

* For full contents and more information, visit: www.routledge.com/9780367616946

2ND EDITION

Structural Wood Design

ASD/LRFD

**Abi Aghayere , Jason Vigil**

This simple, practical, and concise guide to timber design uses both the Allowable Stress Design and the Load and Resistance Factor Design methods. It equips students to design real-world wood structures, taking a holistic project-based learning approach and using practical example problems. This new edition provides more on the student design project with examples of drawings and specifications used for construction; in-depth coverage of lateral force resisting systems for wood construction; design examples using LRFD for joists, girders and axially load member; framing and framing systems; long span wood members and members used in high-rise construction; and updated floor span charts.

CRC Press

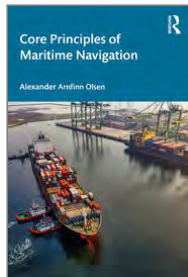
December 2019 : 648pp

Pb: 978-0-367-87562-6 : **£45.99**Hb: 978-1-498-74985-5 : **£91.99**

eBook: 978-1-315-36839-9

* For full contents and more information, visit: www.routledge.com/9780367875626

Core Principles of Maritime Navigation



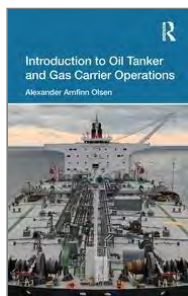
Alexander Arnfinn Olsen RINA Consulting Defence, UK

Core Principles of Maritime Navigation introduces the main navigation concepts required by trainees and professionals involved in maritime operations. The book covers a wide range of subjects from wind, waves and depths to navigational marks and buoys, navigational techniques and equipment, passage planning, duties of the Officer of the Watch, berthing and anchorage. It is not intended to be a technical publication; rather, it aims to introduce core ideas and concepts in an accessible way for general readers, university students, cadets and for the continuous professional development of experienced seafarers.

Routledge
August 2022 : 200pp
Pb: 978-1-032-27138-5 : **£52.99**
Hb: 978-1-032-27139-2 : **£155**
eBook: 978-1-003-29153-4

* For full contents and more information, visit: www.routledge.com/9781032271385

Introduction to Oil Tanker and Gas Carrier Operations



Alexander Arnfinn Olsen RINA Consulting Defence, UK

This book introduces the mandatory minimum requirements for training and qualifications for masters, officers, and ratings serving on board liquefied gas tankers. It covers basic safety and pollution-prevention precautions and procedures, layouts of several types of liquefied gas tankers, types of cargo, their hazards, and their handling equipment, as well as general operational sequence and liquefied gas tanker terminology. The book covers the Level 1 training requirements prescribed by Regulation V/1, paragraph 1.2 of the International Convention on Standards of Training, Certification and Watchkeeping for Seafarers, STCW-95.

Routledge
December 2024 : 352pp
Hb: 978-1-032-82400-0 : **£120**
eBook: 978-1-003-50504-4

* For full contents and more information, visit: www.routledge.com/9781032824000

Introduction to Ship Engine Room Systems



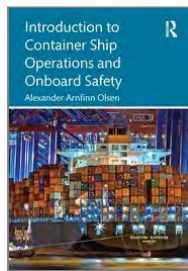
Alexander Arnfinn Olsen RINA Consulting Defence, UK

Introduction to Ship Engine Room Systems outlines the key systems, machinery and equipment found in a ship's engine room. It covers the basics of their function with overall practical guidance for engine room operation and maintenance, recognising emerging environmental challenges. It serves as an introduction for engineering students at HNC, HND and foundation degree level and marine engineering cadets, as well as a useful guide for deck officers and cadets who want a general appreciation of how the engine room functions.

Routledge
April 2023 : 424pp
Pb: 978-1-032-34227-6 : **£69.99**
Hb: 978-1-032-34228-3 : **£170**
eBook: 978-1-003-32109-5

* For full contents and more information, visit: www.routledge.com/9781032342276

Introduction to Container Ship Operations and Onboard Safety



Alexander Arnfinn Olsen RINA Consulting Defence, UK

Introduction to Ship Operations and Onboard Safety is an introduction for students and professionals involved in the maritime industry. It provides an overview of the merchant navy from its beginnings to the present day, entry and training requirements, shipboard hierarchy and roles and responsibilities, shipboard safety organisation, inductions and new crew member familiarisation, safe means of access to enclosed spaces, general housekeeping, risk assessment and risk management. In addition, it examines specific hazardous activities such as cargo loading and unloading, drydocking, drills and actions to take in the event of an emergency.

Routledge
March 2022 : 332pp
Pb: 978-1-032-15542-5 : **£51.99**
Hb: 978-1-032-15543-2 : **£94.99**
eBook: 978-1-003-24461-5

* For full contents and more information, visit: www.routledge.com/9781032155425

Maritime Cargo Operations



Alexander Arnfinn Olsen RINA Consulting Defence, UK

Maritime Cargo Operations introduces the core concepts of cargo work for marine engineering students and cadets. It provides enough detail to provide a sound basis for a future career, and is built around the essential principles of the maritime profession. Each subject area begins with a learning outcome and ends with self-test questions. It also offers a general overview for deck officers.

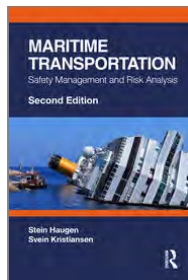
Routledge
April 2023 : 314pp
Pb: 978-1-032-40696-1 : **£50.99**
Hb: 978-1-032-40697-8 : **£150**
eBook: 978-1-003-35433-8

* For full contents and more information, visit: www.routledge.com/9781032406961

2ND EDITION

Maritime Transportation

Safety Management and Risk Analysis



Stein Haugen Norwegian University of Science and Technology, **Svein Kristiansen** Norwegian University of Science and Technology

This overview maritime safety management, covers regulations and guidelines, current practice, and approaches and methods, along with practice from other industries. This extensively revised new edition provides brand new chapters on security and on terminology, and significant new coverage of risk acceptance, safety management systems, human reliability assessment, and formal safety assessment. It addresses the needs of both professionals and students working in the related fields of shipping management, ship design and naval architecture and transport management, as well as fields including safety management, insurance and accident investigation.

Routledge
December 2022 : 672pp
Pb: 978-0-367-51856-1 : **£86.99**
Hb: 978-0-367-51857-8 : **£235**
eBook: 978-1-003-05546-4

* For full contents and more information, visit: www.routledge.com/9780367518561

Merchant Ship Types



Alexander Arnfinn Olsen RINA Consulting Defence, UK

This gives students and cadets a detailed introduction to the classifications and main categories of merchant vessels. It introduces the concept of ship classification – by usage (feeder, general, container, tankers, dry bulk, multi-purpose, reefers, and roll on roll off), by cargo type (dry cargo, wet cargo, specialised), and by size (Handy, Seawaymax, Panamax, NeoPanamax, VLCC). It explains the ports and channels where and why each type is permitted to enter, showing the type of cargoes carried, and specific safety or risk factors, and their main characteristics, along with relevant case studies.

Routledge

January 2023 : 350pp

Pb: 978-1-032-37875-6 : **£57.99**

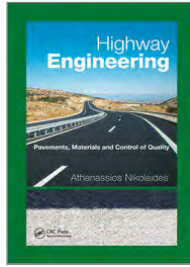
Hb: 978-1-032-37876-3 : **£150**

eBook: 978-1-003-34236-6

* For full contents and more information, visit: www.routledge.com/9781032378756

Highway Engineering

Pavements, Materials and Control of Quality



Athanassios Nikolaides Aristotle University of Thessaloniki, Greece

This comprehensive textbook covers all aspects of pavement engineering. The content takes into account new developments and includes both the recently completed European norms and the revised ASTM and AASHTO American standards, as well as some Australian standards. The book is derived from the authors' experience working as a teacher, researcher, and consultant and technical committee member in Europe and abroad over the last 30 years.

CRC Press

July 2017 : 924pp

Pb: 978-1-138-89376-4 : **£86.99**

Hb: 978-1-466-57996-5 : **£235**

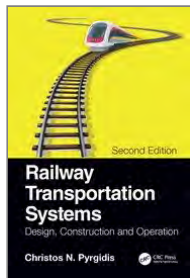
eBook: 978-0-429-10066-6

* For full contents and more information, visit: www.routledge.com/9781138893764

2ND EDITION

Railway Transportation Systems

Design, Construction and Operation



Christos N. Pyrgidis Aristotle University of Thessaloniki, Greece

This comprehensive overview covers the entire range of railway passenger systems, from conventional and high-speed intercity systems to suburban, regional, operating on steep gradients, and urban ones. It also examines in depth freight railway systems transporting conventional loads, heavy loads, and dangerous goods. This new edition brings two new chapters. One concerns pre-feasibility studies of urban rail projects, and the other analyses the operation of railway systems under specific weather conditions and natural phenomena. It is ideal for graduate students, engineers, consultants, manufacturers, and transport company executives who need a reference and guide.

CRC Press

November 2021 : 594pp

Pb: 978-0-367-49423-0 : **£67.99**Hb: 978-0-367-49421-6 : **£175**

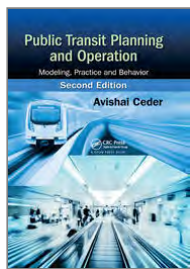
eBook: 978-1-003-04607-3

* For full contents and more information, visit: www.routledge.com/9780367494230

2ND EDITION

Public Transit Planning and Operation

Modeling, Practice and Behavior, Second Edition

**Avishai Ceder**

This book examines the main components affecting the viability of a public-transport service from both the passenger and agency perspectives, and offers solutions to well-known problems in the field. This second edition establishes a bridge between the world of practitioners and the world of research and academia. It presents new material on the design of network of routes, reliability and scheduling, coordination and connectivity, operational strategies and tactics, and new topics such as passenger behavior, multi-vehicle operations, multi-agent transit systems, and transit automation.

CRC Press

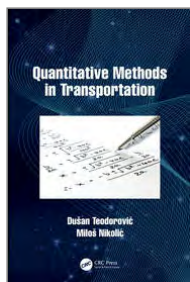
December 2019 : 742pp

Pb: 978-0-367-86760-7 : **£50.99**Hb: 978-1-466-56391-9 : **£92.99**

eBook: 978-0-429-10024-6

* For full contents and more information, visit: www.routledge.com/9780367867607

Quantitative Methods in Transportation

**Dušan Teodorović** University of Belgrade, Serbia, **Miloš Nikolić**

This textbook of quantitative methods in transportation engineering comes with problems and a solutions manual for adopting course instructors. Basic mathematics and calculus are prerequisites. It covers linear programming, integer programming, dynamic programming and multi-objective programming. It moves to more advanced combinatorial techniques which depend on metaheuristic algorithms. Then to probability theory and statistics, and simulation models. And progresses to computational intelligent systems, such as fuzzy logic, artificial neural networks, and genetic algorithms. These are applied to transportation problems such as demand management, network planning and traffic control.

CRC Press

August 2020 : 480pp

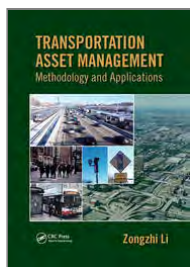
Pb: 978-0-367-25053-9 : **£55.99**Hb: 978-0-367-25054-6 : **£170**

eBook: 978-0-429-28691-9

* For full contents and more information, visit: www.routledge.com/9780367250539

Transportation Asset Management

Methodology and Applications

**Zongzhi Li**

Transportation asset management delivers efficient and cost-effective investment decisions to support transportation infrastructure and system usage performance measured in economic, social, health, and environmental terms. It can be applied at national, state, and local levels. This can be applied to multimodal transportation, taking account of system component interdependency, integration, and risk and uncertainty. It applies as easily to static traffic and time-dependent or dynamic traffic. It is written for transportation planners and engineers, as well as graduate students.

CRC Press

September 2020 : 760pp

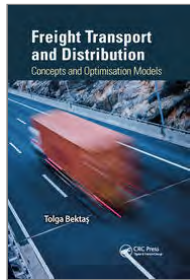
Pb: 978-0-367-65708-6 : **£50.99**Hb: 978-1-482-21052-1 : **£150**

eBook: 978-1-315-11796-6

* For full contents and more information, visit: www.routledge.com/9780367657086

Freight Transport and Distribution

Concepts and Optimisation Models



Tolga Bektas

This book provides a general and broad coverage of concepts, models, and solution methodologies available for freight transportation. It includes preliminaries, such as mathematical modeling and simulation, but does not require prior knowledge of these techniques. Case studies or practical examples are featured in each chapter to illustrate applications of the concepts and models covered and to encourage a hands-on and practical approach. Both authors have taught and published extensively in the field and draw on state-of-the-art scientific research.

CRC Press

December 2019 : 288pp

Pb: 978-0-367-87087-4 : **£51.99**

Hb: 978-1-482-25870-7 : **£96.99**

eBook: 978-1-315-17396-2

* For full contents and more information, visit: www.routledge.com/9780367870874

City and Transportation Planning

An Integrated Approach



Akinori Morimoto Waseda University, Japan

Many urban and transportation problems, such as traffic congestion, traffic accidents and environmental burdens, result from poor integration of land use and transportation. This graduate-level textbook outlines strategies for sustainably integrating land use and transportation planning, addressing the impact on land use of advanced transport like light rail transit and autonomous cars, and the emerging focus on cyber space and the role of ICT and big data in city planning.

Routledge

August 2021 : 222pp

Pb: 978-0-367-63601-2 : **£55.99**

Hb: 978-0-367-63602-9 : **£125**

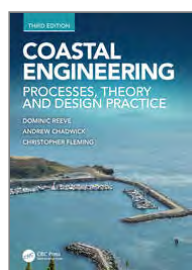
eBook: 978-1-003-11991-3

* For full contents and more information, visit: www.routledge.com/9780367636012

3RD EDITION

Coastal Engineering

Processes, Theory and Design Practice



Dominic Reeve University of Swansea, UK, **Andrew Chadwick** retired from University of Plymouth, UK, **Christopher Fleming** Halcrow Group Ltd., Swindon, UK

Coastal Engineering is a must-have book for final year undergraduate and engineering MSc students specializing in coastal engineering and management. This third edition covers a number of developments, with updates to conceptual and detailed design; a detailed example is given for the calculation of extreme wave conditions for design; and a rethinking of coastal system behaviour in the light of NERC's iCOASST project – along with a new section on the components of surge; the method for tidal analysis and calculation of amplitudes and phases of harmonic constituents from water level time series; a worked example of harmonic analysis; and an revised section on the Tohoku tsunami.

CRC Press

April 2018 : 542pp

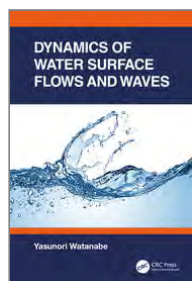
Pb: 978-1-138-06043-2 : £60.99

Hb: 978-1-138-06042-5 : £175

eBook: 978-1-351-16552-5

* For full contents and more information, visit: www.routledge.com/9781138060432

Dynamics of Water Surface Flows and Waves



Yasunori Watanabe Hokkaido University, Japan

This graduate-level textbook and reference takes a theoretical and analytical approach to theoretical surface and wave dynamics over wide ranging lengths and time-scales. It starts with fundamental fluid dynamics, and the dynamics of free-surfaces and interfaces with vortices, as applied to small amplitude waves, deformations of a thin film, jets, and sloshing waves in containers. The flow theory includes stability of water surfaces and wave-current interactions, and is applied to waves observed in open ocean and shallower coastal regions, exploring the evolution of wave packets, interactions with structures, currents, and bathymetry, and breaking wave dynamics.

CRC Press

January 2025 : 296pp

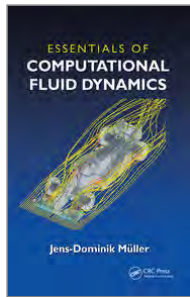
Pb: 978-0-367-69043-4 : £48.99

Hb: 978-0-367-69042-7 : £86.99

eBook: 978-1-003-14016-0

* For full contents and more information, visit: www.routledge.com/9780367690434

Essentials of Computational Fluid Dynamics



Jens-Dominik Müller Queen Mary University of London, England, UK

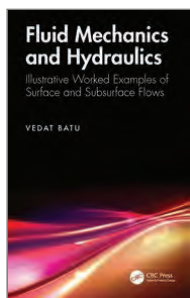
Approaching the material from the viewpoint of a user of a commercial flow package, this book initially limits the description of the mathematics to the level that is strictly needed to make the correct choices when setting up a case in a commercial flow solver. It discusses the sources of errors in FD solutions using simple examples with finite differences, and they are demonstrated with mesh convergence studies. It focuses on the understanding of how the flow physics interact with a typical finite-volume discretization.

CRC Press
November 2015 : 238pp
Pb: 978-1-482-22730-7 : **£115**
Hb: 978-1-138-40130-3 : **£195**
eBook: 978-0-429-18868-8

* For full contents and more information, visit: www.routledge.com/9781482227307

Fluid Mechanics and Hydraulics

Illustrative Worked Examples of Surface and Subsurface Flows



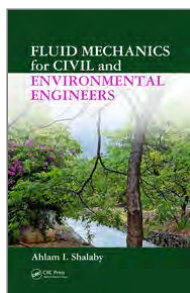
Vedat Batu

Fluid Mechanics and Hydraulics: Illustrative Worked Examples of Surface and Subsurface Flows presents the basic principles of fluid mechanics through the use of numerous worked examples. It serves as an effective learning source for college students and as a teaching tool for instructors (with an included solutions manual) as well as for practicing professionals in the areas of fluid mechanics and hydraulics.

CRC Press
May 2024 : 1268pp
Hb: 978-1-032-60078-9 : **£175**
eBook: 978-1-003-45744-2

* For full contents and more information, visit: www.routledge.com/9781032600789

Fluid Mechanics for Civil and Environmental Engineers



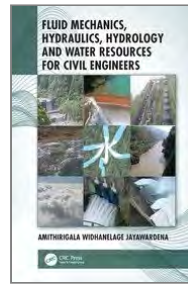
Ahlam I. Shalaby Howard University

An ideal textbook for civil and mechanical engineers taking the required Introduction to Fluid Mechanics course, Engineering Fluid Mechanics: An Introduction offers clear guidance and builds a firm real-world foundation using practical examples and problem sets. Each chapter begins with a statement of objectives and includes practical examples to relate the theory to real-world engineering design challenges. The authors place special emphasis on topics that are included in the Fundamentals of Engineering exam and make the book more accessible by highlighting keywords and important concepts, including MathCAD algorithms, and providing chapter summaries of important concepts and equations.

CRC Press
March 2018 : 1684pp
Hb: 978-0-849-33737-6 : **£185**
eBook: 978-1-315-15663-7

* For full contents and more information, visit: www.routledge.com/9780849337376

Fluid Mechanics, Hydraulics, Hydrology and Water Resources for Civil Engineers



Amithirigala Widhanelage Jayawardena The University of Hong Kong

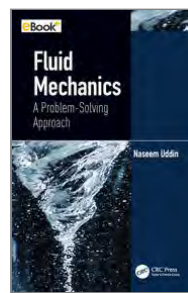
This textbook combines the essentials of water science and engineering needed by civil engineering students and practitioners: fluid mechanics, hydraulics, hydrology and water resources. It also touches on water related disasters and the role of water in sustainability. Traditional textbooks tend to look at these themes discretely, and so miss the natural connections between them, and the commonality of their underlying foundations. Students from junior undergraduate to Masters level should find this a useful text and key reference.

CRC Press
January 2021 : 894pp
Pb: 978-1-138-39081-2 : **£76.99**
Hb: 978-1-138-39080-5 : **£195**
eBook: 978-0-429-42311-6

* For full contents and more information, visit: www.routledge.com/9781138390812

Fluid Mechanics

A Problem-Solving Approach



Naseem Uddin Universiti Teknologi Brunei

Fluid Mechanics: A Problem-Solving Approach presents problem-solving approaches that are used in fluid mechanics and provides a clear distinction between integral formulation and the different formulation of conservation law. The book is intended for senior undergraduate mechanical and civil engineering students taking courses in Fluid Mechanics. Including a detailed discussion on pipe flow correlations, entrance length correlations, and plotting of Moody diagram, the book works through the comprehensive coverage of fluid mechanics with a gradual introduction of theory in a straightforward, practical approach.

CRC Press
December 2022 : 537pp
Hb: 978-1-032-32453-1 : **£125**
eBook: 978-1-032-32456-2 : **£105**

* For full contents and more information, visit: www.routledge.com/9781032324531

2ND EDITION

Fluid Mechanics

An Intermediate Approach



Bijay K. Sultanian University of Central Florida, FL

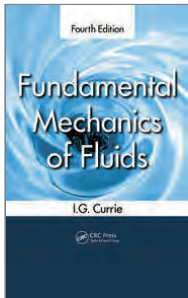
Fluid Mechanics: An Intermediate Approach helps readers develop a physics-based understanding of complex flows and mathematically model them with accurate boundary conditions for numerical predictions. The book includes numerous worked examples and end-of-chapter problems for student practice. It also discusses how to numerically model compressible flow over all Mach numbers in a variable-area duct, accounting for friction, heat transfer, rotation, internal choking, and normal shock formation. The book is intended for graduate mechanical and aerospace engineering students taking courses in Fluid Mechanics and Gas Dynamics.

CRC Press
January 2025 : 390pp
Hb: 978-1-032-35079-0 : **£120**
eBook: 978-1-032-88318-2 : **£99.99**

* For full contents and more information, visit: www.routledge.com/9781032350790

4TH EDITION

Fundamental Mechanics of Fluids



I.G. Currie University of Toronto, Ontario, Canada

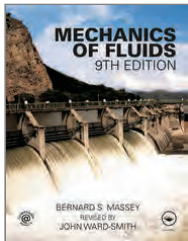
Fully updated and expanded to reflect advances in modern mathematics, this fourth edition boasts 40 new homework problems (nearly 150 in total); new appendix material summarizing vectors, tensors, complex variables, and governing equations in common coordinate systems; and a new chapter on similarity solutions, group invariance solutions, separation of variables solutions, and some Fourier series representations. Illustrating basic equations and strategies to analyze fluid dynamics, mechanisms, and behavior, this new edition also contains reworked line drawings, revised problems, and extended end-of-chapter questions for clarification and expansion of key concepts.

CRC Press
August 2012 : 604pp
Hb: 978-1-439-87460-8 : **£155**
eBook: 978-0-429-09888-8

* For full contents and more information, visit: www.routledge.com/9781439874608

9TH EDITION

Mechanics of Fluids



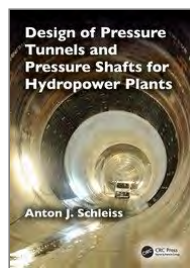
John Ward-Smith (Formerly Brunel University, UK)

This ninth edition adds a section examining the modern context of fluid mechanics and associated issues including climate change, new forms of energy generation, and fresh water conservation.

CRC Press
August 2011 : 720pp
Pb: 978-0-415-60260-0 : **£66.99**
Hb: 978-0-415-60259-4 : **£235**
eBook: 978-1-315-27254-2

* For full contents and more information, visit: www.routledge.com/9780415602600

Design of Pressure Tunnels and Pressure Shafts for Hydropower Plants



Anton Schleiss Swiss Federal Institute of Technology Lausanne (EPFL)

Pressure tunnels and shafts are essential for hydropower plants, and their cost and linings is significant. This outlines the design basis, including rock hydraulics, then details the need and use of various types of linings. Pervious linings are often the most economical solution, but seepage forces in the lining and the rock mass result in hydraulic-mechanical interactions. In tight linings, the use of high-grade steels facilitates very high heads at storage level and pumped storage powerplant projects, but these require new risk-based design approaches. It covers design criteria and calculation methods, including safety assessment.

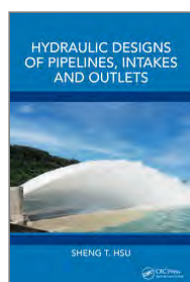
CRC Press

May 2026 : 460pp

Hb: 978-1-032-12284-7 : £170

* For full contents and more information, visit: www.routledge.com/9781032122847

Hydraulic Designs of Pipelines, Intakes and Outlets



Sheng T. Hsu GT International, Taipei, Taiwan

This book addresses hydraulic design considerations of integrated pipeline systems, including intakes, conduits, and outlets. Based on the author's experience of over 50 years working with hydraulic designs of structures as well as designs, analyses and trouble-shootings of pipeline systems, the book discusses actual design practice and presents a range of real-world examples of projects conducted and participated in by the author. This applied approach gives the book a uniquely practical focus. The book serves as a reference for practitioners as well as a textbook for postgraduate students.

CRC Press

February 2025 : 364pp

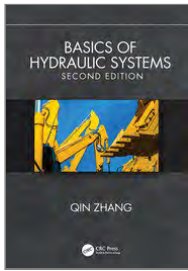
Hb: 978-1-032-60651-4 : £150

eBook: 978-1-003-46267-5

* For full contents and more information, visit: www.routledge.com/9781032606514

2ND EDITION

Basics of Hydraulic Systems, Second Edition



Qin Zhang Washington State University, Prosser, USA

Basics of Hydraulic Systems, Second Edition provides students and professionals in both engineering and technology management fields a basic book to assist in their study of fluid power systems technology. This edition is expanded to include new chapters on system modeling and hydraulic systems controls. The text covers subjects essential to understanding operating principles, configuration features, functionalities, applications of composing elements, and controls of hydraulic systems. It presents them in a systematic, accessible way, following the course of energy transmission in hydraulic power generation, distribution, deployment, modeling, and control in fluid power systems.

CRC Press

March 2019 : 338pp

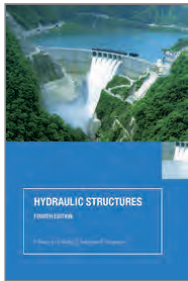
Hb: 978-1-138-48466-5 : £155

eBook: 978-0-429-19726-0

* For full contents and more information, visit: www.routledge.com/9781138484665

4TH EDITION

Hydraulic Structures



P. Novak formerly at University of Newcastle-upon-Tyne, UK, **A.I.B. Moffat** formerly at the University of Newcastle upon Tyne, UK, **C. Nalluri** formerly at the University of Newcastle upon Tyne, UK, **R. Narayanan** formerly at University of Manchester, UK

The fourth edition of this volume presents design principles and practical guidance for key hydraulic structures. Fully revised and updated this new edition contains enhanced texts and sections on key topics. Worked numerical examples supplement the main text and extensive lists of references conclude each chapter. Hydraulic Structures provides advanced students with a solid foundation in the subject and is a useful reference source for researchers, designers and other professionals. Selected Contents: Part One: Dam Engineering. 1. Elements of Dam Engineering. 2. Embankment Dam Engineering. 3. Concrete Dam Engineering. 4. Dam Outlet Works. 5. Energy Dissipation. 6. Gates and Valves. 7. Dam Safety. Part Two: Other Hydraulic Structures. 8. River Engineering. 9. Diversion Works. 10. Cross-drainage and Drop Structures. 11. Inland Waterways. 12. Hydr

CRC Press

December 2006 : 728pp

Pb: 978-0-415-38626-5 : £66.99

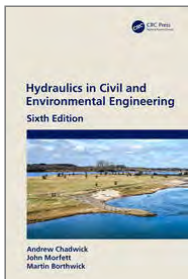
Hb: 978-0-415-38625-8 : £265

eBook: 978-1-315-27489-8

* For full contents and more information, visit: www.routledge.com/9780415386265

6TH EDITION

Hydraulics in Civil and Environmental Engineering



Andrew Chadwick former university lecturer, UK, **John Morfett**, **Martin Borthwick** Environment Agency, UK

This classic textbook brings together the basic principles of civil engineering hydraulics with a wide-range of practical, real-world applications. This new edition gives more on hydrostatics, along with new problems for students to practice with. Uncertainty estimation and its application to design is presented in the hydrology, river and coastal engineering chapters. Recommendations for climate change predictions, impacts and adaptation measures have been updated, as has the chapter on computational hydraulics for the application of computational simulation techniques. Spreadsheets and a solutions manual for lecturers are given on www.crcpress.com

CRC Press

June 2021 : 652pp

Pb: 978-0-367-46089-1 : £69.99

Hb: 978-0-367-46090-7 : £175

eBook: 978-1-003-02683-9

* For full contents and more information, visit: www.routledge.com/9780367460891

Hydraulic & Hydrologic Engineering

Fundamentals and Applications



Zohrab A. Samani

This book is the culmination of over 40 years of teaching, research, consulting, and international technology transfer activities. It consists of seven chapters with coverage including pipeline design, design safety, design of pumping systems, deep well turbine and submersible pumps characteristics, open channels, hydrology and design of culverts, and flow measurement devices. Some of the practical examples in this book are derived from field experience with water resource related industries at national and international levels.

CRC Press

November 2024 : 166pp

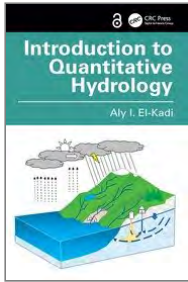
Pb: 978-1-032-26284-0 : **£48.99**

Hb: 978-1-032-26278-9 : **£94.99**

eBook: 978-1-003-28753-7

* For full contents and more information, visit: www.routledge.com/9781032262840

Introduction to Quantitative Hydrology



Aly I. El-Kadi

This textbook serves as an introductory quantitative course on the fundamental elements of the hydraulic cycle. It further enhances students' understanding by discussing the latest advancements in hydrological science, covering both experimental and computational techniques. Targeted at first-year college students, this book supports early career exploration in fields such as natural resources, earth sciences, and civil and environmental engineering. Offering this course early allows students to make informed decisions about their academic and career paths before they reach their senior year, providing them with ample time to pursue specialized interests.

CRC Press

September 2025 : 344pp

Pb: 978-1-032-96493-5 : **£75.99**

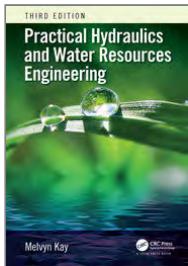
Hb: 978-1-032-95912-2 : **£185**

eBook: 978-1-003-58714-9

* For full contents and more information, visit: www.routledge.com/9781032964935

3RD EDITION

Practical Hydraulics and Water Resources Engineering



Melvyn Kay Consultant Engineer, United Kingdom

Water engineering involves a range of issues – public water supply, agriculture, irrigation, energy, environment, and sustainable development – which all depend on basic hydraulics. This text suits a non-engineer: it is simple and practical and light on math, and uses 'stories' from the practice of water supply and sanitation, agriculture, energy, river engineering and in sustaining the aquatic environment. This third edition goes beyond hydraulic principles into water resources engineering and water planning and security, and explores pitfalls which can seriously affect future planning.

CRC Press

December 2016 : 375pp

Pb: 978-1-498-76195-6 : **£66.99**

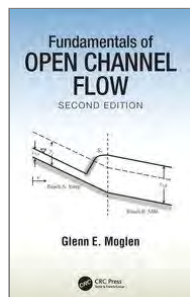
Hb: 978-1-138-47106-1 : **£205**

eBook: 978-1-315-38067-4

* For full contents and more information, visit: www.routledge.com/9781498761956

2ND EDITION

Fundamentals of Open Channel Flow



Glenn E. Moglen US Department of Agriculture, USA

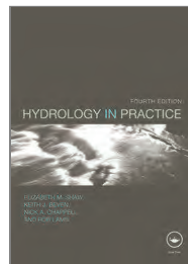
This new edition focuses on theory with clear, fully-solved examples, and practical tools such as spreadsheets and software. Now with more on design applications, including culvert design, a wider range of channel shapes, and an update of the US Corps of Engineers' HEC-RAS program. It suits a senior undergraduate or graduate student course, covering energy, momentum, friction, and gradually varied flow, both qualitative and quantitative, with the few simple equations needed. Energy-depth and momentum-depth relationships are looked at graphically and the book's website gives a wealth of interactive tools and animations showing actual flow dynamics of some transient flow problems.

CRC Press
December 2022 : 322pp
Pb: 978-1-032-20455-0 : **£69.99**
Hb: 978-1-032-20456-7 : **£155**
eBook: 978-1-032-38171-8 : **£59.99**

* For full contents and more information, visit: www.routledge.com/9781032204550

4TH EDITION

Hydrology in Practice



Elizabeth M. Shaw, **Keith Beven** Lancaster University, UK, **Nick A. Chappell** Lancaster University, UK, **Rob Lamb** JBA Consulting, UK

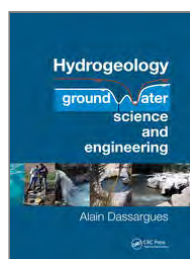
This is an introductory textbook for engineering hydrology students who would go on to be practitioners in consultancies. The 4th edition replaces the material on the Flood Studies Report with an equivalent section on the methods of the Flood Estimation Handbook and its revisions. Other completely revised sections on instrumentation and modelling reflect the many changes that have occurred over recent years. Up to date methods and case studies and a wider range of material on hydrological processes are also included. Selected Contents: Part 1: Hydrological Measurements Part 2: Hydrological Analysis and Modelling Part 3: Applications

CRC Press
July 2010 : 560pp
Pb: 978-0-415-37042-4 : **£60.99**
Hb: 978-0-415-37041-7 : **£205**
eBook: 978-1-315-27490-4

* For full contents and more information, visit: www.routledge.com/9780415370424

Hydrogeology

Groundwater Science and Engineering



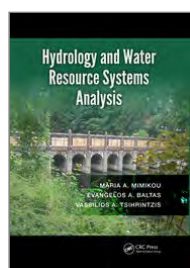
Alain Dassargues

This text combines the science and engineering of hydrogeology. It provides a physical description and characterisation of hydrogeological processes and sets out the corresponding mathematical equations for groundwater flow and solute/heat transport calculations for graduate students and professionals.

CRC Press
September 2020 : 492pp
Pb: 978-0-367-65714-7 : **£44.99**
Hb: 978-1-498-74400-3 : **£82.99**
eBook: 978-0-429-47066-0

* For full contents and more information, visit: www.routledge.com/9780367657147

Hydrology and Water Resource Systems Analysis



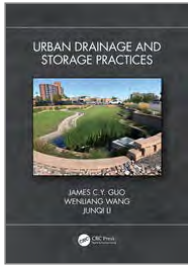
Maria A. Mimikou National Technical University of Athens, Greece, **Evangelos A. Baltas** National Technical University of Athens, Greece, **Vassilios A. Tsihrintzis** National Technical University of Athens, Greece

Hydrology and water resources analysis can be looked at together, but this is the only book that presents the relevant material and bridges the gap between scientific processes and applications in one text. It is written for advanced undergraduate and graduate students and for practitioners. It can assist hydrologists and water-related professionals with an unfamiliar term or a new subject area, a formula, the procedure for solving a problem, guidance on the available computer packages, or how to obtain values from a table of data.

CRC Press
November 2018 : 478pp
Pb: 978-0-367-02801-5 : **£29.99**
Hb: 978-1-466-58130-2 : **£91.99**
eBook: 978-1-315-37424-6

* For full contents and more information, visit: www.routledge.com/9780367028015

Urban Drainage and Storage Practices



James C.Y. Guo U of Colorado Denver, USA, **Wenliang Wang** Beijing U of Civil Engr. & Architecture, China, **Junqi Li** Beijing U of Civil Engr. & Architecture, China

This text focuses on the development of urban storm water design methods using drainage and storage approaches for both water quality and quantity control. It covers conventional approaches to flood mitigation and low-impact methods for stormwater quality enhancement. Theory, practice, and modelling methods illustrate how to build a holistic stormwater drainage and storage system using urban open space and parks through multiple land use. Each chapter provides background theory, numerical experiments, illustrations, and Excel spreadsheets for design and calculation. It is ideal for graduate students studying urban hydrology, hydraulic engineering, and water resource management.

CRC Press

November 2024 : 432pp

Pb: 978-1-032-25614-6 : **£55.99**

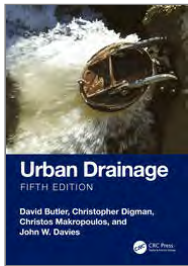
Hb: 978-1-032-25612-2 : **£155**

eBook: 978-1-003-28423-9

* For full contents and more information, visit: www.routledge.com/9781032256146

5TH EDITION

Urban Drainage



David Butler University of Exeter, UK, **Christopher Digman**, **Christos Makropoulos** National Technical University of Athens, Zografou, Greece, **John W. Davies**

This new edition of a well-established textbook covers the health, environmental and engineering aspects of the management of rainwater and wastewater in areas of human development. This fifth edition includes a new chapter on urban drainage planning and coverage of emerging contaminants, wastewater surveillance, AI, digital twins and cyberphysical security. This is an essential text for undergraduates and graduate students, lecturers and researchers in water engineering, environmental engineering, public health engineering, engineering hydrology, and related disciplines. It also serves as a reference for drainage engineers.

CRC Press

December 2024 : 648pp

Pb: 978-1-032-51331-7 : **£52.99**

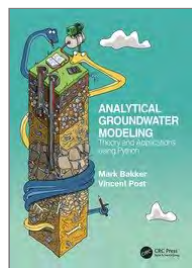
Hb: 978-1-032-52835-9 : **£120**

eBook: 978-1-003-40863-5

* For full contents and more information, visit: www.routledge.com/9781032513317

Analytical Groundwater Modeling

Theory and Applications using Python



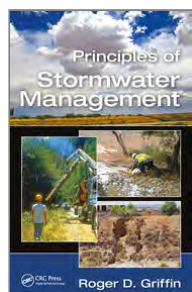
Mark Bakker TU Delft, Faculty of Civil Engineering and Geosciences, Delft, The Netherlands, **Vincent Post** Edinsi Groundwater, The Netherlands

This book covers the theoretical aspects of mathematical groundwater models. It is aimed at advanced (under)graduate university students, as well as practicing hydrogeologists. The focus is on the fundamentals of the quantitative methods used to simulate, understand, and investigate groundwater systems. Uniquely, it provides hands-on exercises based on the popular open-source programming language Python. The book's structure is such that the theoretical treatments of the modeling methods are exemplified by short pieces of computer code that demonstrate the implementation of the theory, making the book highly suitable for university courses on the fundamental aspects of groundwater modeling.

CRC Press
June 2022 : 242pp
Pb: 978-1-138-02939-2 : **£41.99**
Hb: 978-1-138-60563-3 : **£115**
eBook: 978-1-315-20613-4

* For full contents and more information, visit: www.routledge.com/9781138029392

Principles of Stormwater Management



Roger D. Griffin Griffin Environmental International, Irvine, California, USA

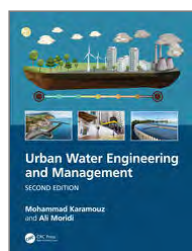
This book presents of all aspects of storm water management: the hydrologic cycle, sources of contaminants, standards applicable to discharges, regulatory issues, atmospheric deposition, best management practices, and health/environmental impacts. It includes technical details of the modern treatment of stormwater, the emerging issues of atmospheric deposition, run-on, and snow melt, the Epidemiologic Model, and field data on discharge concentrations of a variety of contaminants. The principles explained in this book will enable students, contractors, developers, and engineers to grasp the most important field elements which must be included for construction projects impacting stormwater.

CRC Press
February 2018 : 350pp
Hb: 978-1-138-09362-1 : **£140**
eBook: 978-1-351-11375-5

* For full contents and more information, visit: www.routledge.com/9781138093621

2ND EDITION

Urban Water Engineering and Management



Mohammad Karamouz Polytechnic Institute of New York University, Brooklyn, USA, **Ali Moridi** Tarbiat Modarres University, Tehran, Iran

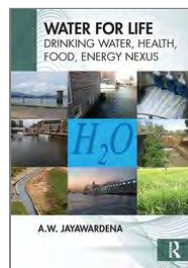
Integrating the latest developments in urban water hydrology and management, Urban Water Engineering and Management takes a system approach to urban water hydrology, engineering, planning and management, supplying examples and case studies, and highlighting pressing issues such as urban water governance, and disaster management on urban areas.

CRC Press
September 2025 : 886pp
Hb: 978-1-032-90755-0 : **£130**
eBook: 978-1-003-63699-1

* For full contents and more information, visit: www.routledge.com/9781032907550

Water for Life

Drinking Water, Health, Food, Energy Nexus



A.W. Jayawardena University of Hong Kong, Hong Kong

Although there is plenty of water to meet the demands of the present population and even for a projected population of about 9 billion, it is not always available when and where needed. The water-food-energy nexus is central to sustainable development with water driving the food and energy sectors. This book surveys the multi-faceted uses, values and importance of water for mankind: water resources, chemistry of water, drinking water, and the links between water and health, food, irrigation, soil, energy, transport, industry, recreation, disasters and conflicts. It includes some links with water engineering to help students and practitioners.

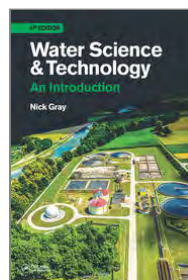
Routledge
December 2022 : 366pp
Pb: 978-1-032-35888-8 : **£49.99**
Hb: 978-1-032-36001-0 : **£125**
eBook: 978-1-003-32920-6

* For full contents and more information, visit: www.routledge.com/9781032358888

4TH EDITION

Water Science and Technology

An Introduction



Nicholas Gray

Water and wastewater treatment technologies are constantly evolving, employing chemists, microbiologists, botanists, and zoologists as well as engineers. This broad and introductory textbook explains the fundamentals of hydrobiology, aquatic ecosystems, water treatment and supply, wastewater treatment and integrated catchment management – now with coverage of the effects of climate change, environmental assessment, sustainability and the threat to biodiversity. It serves as a primer for students or practitioners in science and engineering who have an interest in freshwater biology, chemistry, microbiology or environmental engineering or who need to span these areas.

CRC Press
June 2017 : 704pp
Pb: 978-1-498-75345-6 : **£86.99**
Hb: 978-1-138-63035-2 : **£175**
eBook: 978-1-315-21319-4

* For full contents and more information, visit: www.routledge.com/9781498753456

2ND EDITION

Fundamentals of Wastewater Treatment and Engineering



Rumana Riffat George Washington University, USA,
Taqsim Husnain William Jewell College, USA

This new edition introduces readers to the fundamental concepts of wastewater treatment, followed by engineering design of unit processes for sustainable treatment of municipal wastewater and resource recovery. New chapters reflect advances in design, resource recovery practices and research. It covers history, current practices, emerging concerns, future directions and pertinent regulations that have shaped the objectives of this important area of engineering. Ideally suited for undergraduate and graduate students who have some knowledge of environmental chemistry and fluid mechanics, as well as professionals in the wastewater industry.

CRC Press

May 2024 : 430pp

Pb: 978-0-367-68132-6 : **£49.99**

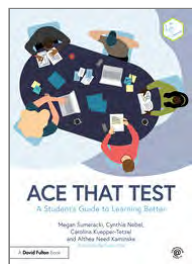
Hb: 978-0-367-68130-2 : **£94.99**

eBook: 978-1-003-13437-4

* For full contents and more information, visit: www.routledge.com/9780367681326

Ace That Test

A Student's Guide to Learning Better



Megan Sumeracki, Cynthia Nebel, Carolina Kuepper-Tetzl, Althea Need Kaminske

This exciting new text reveals the effective study strategies that will help you to use your time more efficiently, ace your tests, and retain information over time. In full colour and accompanied by beautifully illustrated graphics, *Ace That Test* offers evidence-based learning strategies that students can use during their study sessions, including dual coding and the power of retrieving what they know. With QR codes linking to answers to embedded questions and supplemental material, this is essential reading for college, university, and school students as well as educators teaching study skills or learning to learn courses.

Routledge

July 2023 : 146pp

Pb: 978-1-032-35585-6 : **£18.99**

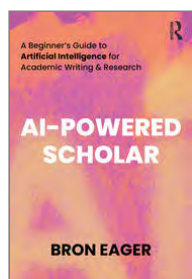
Hb: 978-1-032-35586-3 : **£145**

eBook: 978-1-003-32753-0

* For full contents and more information, visit: www.routledge.com/9781032355856

AI-Powered Scholar

A Beginner's Guide to Artificial Intelligence for Academic Writing & Research



Bron Eager University of Tasmania, Australia

This book is a practical and comprehensive guide on using AI tools to streamline and optimise the academic writing and research process. Through a series of step-by-step instructions and practical tips, this book provides readers with the knowledge and tools they need to leverage the power of AI to produce high-quality academic publications. Whether you're a university student or a tenured professor, this book is your indispensable companion to beginning your path towards becoming an AI-powered scholar.

Routledge

December 2024 : 168pp

Pb: 978-1-032-66526-9 : **£19.99**

Hb: 978-1-032-66525-2 : **£145**

eBook: 978-1-032-66527-6

* For full contents and more information, visit: www.routledge.com/9781032665269

How to Become a Successful College Student

The Tools, Habits, and Skills Needed to Foster College Readiness



Scotty Dunlap Eastern Kentucky University, USA, **Brian Dudak** Middle Tennessee State University, USA

This book is your one-stop shop for the academic tools and habits needed to make your transition from high school to college a resounding success! The shift from high school to college can be a challenge, with many students finding the skills that had previously worked so well no longer seem to be enough. *How to Become a Successful College Student* outlines the strategies you need to 'level up' your current processes in order to foster learning and retention of information in a new and rigorous environment. This guide is a must-have resource for anyone who wants to maximize their higher education experience.

Prufrock Press

November 2023 : 202pp

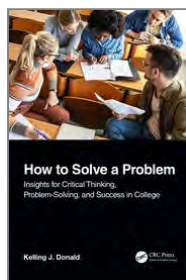
Pb: 978-1-032-52409-2 : **£14.99**

eBook: 978-1-003-41268-7

* For full contents and more information, visit: www.routledge.com/9781032524092

How to Solve A Problem

Insights for Critical Thinking, Problem-Solving, and Success in College



Kelling J. Donald University of Richmond, USA

This concise and accessible resource offers new college students, especially those in science degree programs, guidance on engaging successfully with the classroom experience and skillfully tackling technical or scientific questions. The author provides insights on identifying, from the outset, individual markers for what success in college will look like for students, how to think about the engagement with professors as a partnership, and how to function effectively in that partnership toward achieving their pre-defined goals or markers of success. It is an ideal companion for science degree prospects and first-generation students seeking insight into the college experience.

CRC Press

April 2023 : 152pp

Pb: 978-1-032-20361-4 : **£26.99**

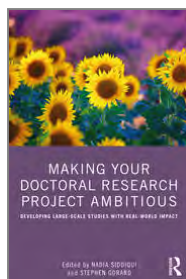
Hb: 978-1-032-20368-3 : **£66.99**

eBook: 978-1-003-26334-0

* For full contents and more information, visit: www.routledge.com/9781032203614

Making Your Doctoral Research Project Ambitious

Developing Large-Scale Studies with Real-World Impact



Edited by Nadia Siddiqui Durham University, UK, **Stephen Gorard** Durham University, UK

This edited collection provides real and outstanding examples of multiple research design methodologies which will allow doctoral researchers to develop a wide set of research skills, leading to the development of a high-quality academic thesis from which peer reviewed research papers and books can emerge. Ideal reading for doctoral students and supervisors, this book is a source of encouragement and motivation for new researchers seeking to challenge general perceptions in the social sciences that PhD or other doctoral research projects must be small-scale rather than trivial studies, but can instead produce robust findings that have real-world implications.

Routledge

April 2022 : 278pp

Pb: 978-1-032-06245-7 : **£30.99**

Hb: 978-1-032-05975-4 : **£155**

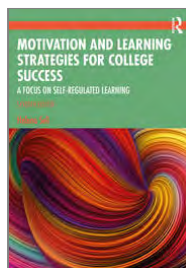
eBook: 978-1-003-20136-6

* For full contents and more information, visit: www.routledge.com/9781032062457

7TH EDITION

Motivation and Learning Strategies for College Success

A Focus on Self-Regulated Learning



Helena Seli

Now in its 7th edition, *Motivation and Learning Strategies for College Success: A Focus on Self-Regulated Learning* provides a framework organized around motivation, methods of learning, time management, control of the physical and social environment, and monitoring performance that makes it easy for students to recognize what they need to do to become successful learners. Full of rich pedagogical features and exercises, students will find Follow-Up Activities, Opportunities for Reflection, Chapter-End Reviews, Key Points, and a Glossary.

Routledge

August 2023 : 304pp

Pb: 978-1-032-47020-7 : **£54.99**

Hb: 978-1-032-47255-3 : **£155**

eBook: 978-1-003-38527-1

* For full contents and more information, visit: www.routledge.com/9781032470207

2ND EDITION

Stress, Cognition and Health

Real World Examples and Practical Applications



Tony Cassidy

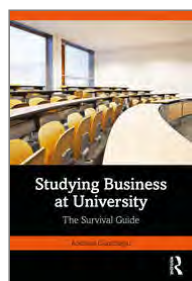
The new edition of this bestselling textbook provides a comprehensive overview of the latest research on stress and health, moving beyond the former deficit model to a resource growth model. It examines all aspects of the topic, from how the external world and the impact of technology makes demands upon individuals, through biological and psychological processes, to outcomes in terms health and wellbeing. The process is set within a dynamic, multilevel systems and developmental lifespan perspective. The book includes a history of the evolution of stress research and the biological systems and immune responses that translate external pressures into health outcomes.

Routledge
October 2022 : 148pp
Pb: 978-0-367-56418-6 : **£39.99**
Hb: 978-0-367-56634-0 : **£140**
eBook: 978-1-003-09873-7

* For full contents and more information, visit: www.routledge.com/9780367564186

Studying Business at University

The Survival Guide



Andreas Giazitzoglu

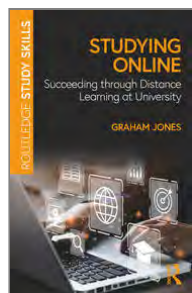
Studying Business at University provides new and prospective undergraduates with a concise and easy-to-read insight into what life is like as a business student today. Written in the style of an email dialogue between two students, it informs and reassures the new business student who is seeking advice on how to get the most out of their degree experience, and covers the whole degree from application to graduation – and beyond. This book will also be a helpful reference for lecturers who want to give their students as much support as possible as they learn to balance the demands of academia with the pressures of the real world.

Routledge
March 2025 : 134pp
Pb: 978-1-032-74042-3 : **£20.99**
Hb: 978-1-032-74034-8 : **£155**
eBook: 978-1-003-46739-7

* For full contents and more information, visit: www.routledge.com/9781032740423

Studying Online

Succeeding through Distance Learning at University



Graham Jones University of Buckingham, UK

Series: *Routledge Study Skills*

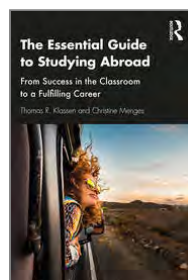
Helping you get to grips with online learning, this book contains a wealth of practical tips and strategies that will make studying online easier. Covering the advantages of online learning as well as the problems you might face, this book provides tried and tested advice to help you overcome those difficulties so that you can work to the best of your abilities. Identifying techniques designed specifically for studying online, with step-by-step instructions, as well as guidance on using online study software to the best effect, this must-have student companion provides tips and tricks to make university distance studying both effective and enjoyable.

Routledge
July 2022 : 244pp
Pb: 978-1-032-19539-1 : **£18.99**
Hb: 978-1-032-19538-4 : **£140**
eBook: 978-1-003-25969-5

* For full contents and more information, visit: www.routledge.com/9781032195391

The Essential Guide to Studying Abroad

From Success in the Classroom to a Fulfilling Career



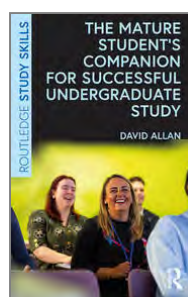
Thomas R. Klassen York University, Canada, **Christine Menges** WHU – Otto Beisheim School of Management, Germany

This book is an indispensable how-to-guide on flourishing when studying abroad, and how to use an international education to begin a fulfilling career after graduation. Written in an engaging and accessible style, using many examples, case studies and links to resources, the book reduces the stress of studying abroad. Covering all aspects of the international student experience – inside and outside the classroom – the book encourages young people to perform their very best and succeed in their new environment. International students preparing for cross cultural learning and recent graduates looking for employment will find this book both practical and inspiring.

Routledge
August 2019 : 238pp
Pb: 978-0-367-23516-1 : **£35.99**
Hb: 978-0-367-23515-4 : **£155**
eBook: 978-0-429-28011-5

* For full contents and more information, visit: www.routledge.com/9780367235161

The Mature Student's Companion for Successful Undergraduate Study



David Allan Edge Hill University, UK

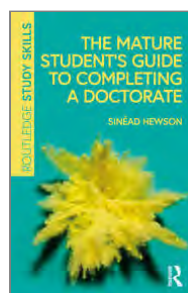
Series: *Routledge Study Skills*

A guiding resource and supportive companion, this book is designed for mature individuals intending to undertake an undergraduate degree. With a wealth of practical strategies for developing study skills, whilst, at the same time, addressing the changes that university study can bring, this key text highlights the significance of individual strengths obtained from life experiences, and demonstrates their importance in learning as a mature student. Packed full of activities to support development and case studies to exemplify a range of situations, this is a must-read for anyone looking to undertake an undergraduate degree as a mature student.

Routledge
June 2025 : 170pp
Pb: 978-1-032-61924-8 : **£17.99**
Hb: 978-1-032-61923-1 : **£155**
eBook: 978-1-032-61925-5

* For full contents and more information, visit: www.routledge.com/9781032619248

The Mature Student's Guide to Completing a Doctorate



Sinéad Hewson

Series: *Routledge Study Skills*

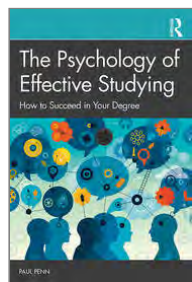
Carefully structured to make it accessible and easy to follow, this thought-provoking book encourages the reader to facilitate a dialogue across disciplines so that unconventional students are acknowledged and can discover a successful path towards admission and PhD completion. It is a must-read for advanced academic researchers, advanced post-graduate students and experienced professionals with vocational backgrounds who are seeking recognition for their knowledge and alternative pathways to contribute to the sector.

Routledge
April 2024 : 282pp
Pb: 978-1-032-53800-6 : **£17.99**
Hb: 978-1-032-53801-3 : **£145**
eBook: 978-1-003-41369-1

* For full contents and more information, visit: www.routledge.com/9781032538006

The Psychology of Effective Studying

How to Succeed in Your Degree



Paul Penn Independent Scholar, UK

This book provides a vital guide for students to key study skills that are instrumental in success at university. It uses a combination of research from cognitive psychology, humour and practical examples to convey where students often go fundamentally wrong in their studying practices and provides clear and concise advice on how they can improve. The book covers time management, academic integrity, writing essays, team work, and other key required skills for academic study. Written in a humorous and irreverent tone, and including illustrations and examples from popular culture, this is the ideal alternative and accessible study skills resource for any student at undergraduate level.

Routledge

August 2019 : 244pp

Pb: 978-1-138-57092-4 : **£23.99**

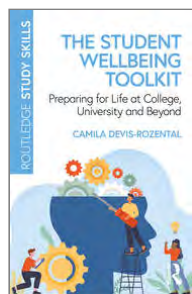
Hb: 978-1-138-57090-0 : **£140**

eBook: 978-0-203-70311-3

* For full contents and more information, visit: www.routledge.com/9781138570924

The Student Wellbeing Toolkit

Preparing for Life at College, University and Beyond



Camila Devis-Rozental Bournemouth University, UK

Series: Routledge Study Skills

The Student Wellbeing Toolkit puts wellbeing at the centre of your journey into university and beyond. By encouraging self-efficacy and a focus on the things you can control, it provides clear guidance to enhance wellbeing and opportunities for self-reflection that help develop self-awareness and prosocial skills for life. Drawing on research evidenced theories around positive psychology, theories of learning, motivation, and self-development, the book explores what, how, and why these areas are key to our wellbeing and the rationale for taking them into account to enable you to flourish and thrive at university.

Routledge

June 2023 : 286pp

Pb: 978-1-032-32966-6 : **£18.99**

Hb: 978-1-032-32965-9 : **£155**

eBook: 978-1-003-31754-8

* For full contents and more information, visit: www.routledge.com/9781032329666

3RD EDITION

Academic Writing for International Students of Business and Economics



Stephen Bailey Taught English internationally and at the Univ of Nottingham & Derby Univ & has previously published with Routledge

Now in its third edition, this key text helps international students succeed in writing essays and reports for their business and economics course. Thoroughly revised and updated, it is designed to be used by teachers in the classroom and students for self-study. New topics in this edition include writing in groups, written British and American English, and reflective writing. In addition, the new interactive website has a full set of teaching notes as well as more challenging exercises, revision material and links to other sources. Written to deal with the specific language issues faced by international students, this practical, user-friendly book is an invaluable guide.

Routledge
January 2020 : 346pp
Pb: 978-0-367-28031-4 : **£30.99**
Hb: 978-0-367-28030-7 : **£155**
eBook: 978-0-429-29927-8

* For full contents and more information, visit: www.routledge.com/9780367280314

Academic Writing for University Students



Stephen Bailey Taught English internationally and at the Univ of Nottingham & Derby Univ & has previously published with Routledge

Designed to help students succeed in writing university-level essays and reports, this book has been carefully designed for use both in the classroom and for self-study. Covering three key areas: the writing process, elements of writing and writing models, it encourages critical writing and developing a voice. Academic Writing in the University provides all of the tools necessary to produce excellent written work. With progress checks, practical examples and self-testing units, this practical, user-friendly book covers all stages of the writing process and is an invaluable guide to academic writing in the university.

Routledge
December 2021 : 324pp
Pb: 978-0-367-44539-3 : **£24.99**
Hb: 978-0-367-44538-6 : **£155**
eBook: 978-1-003-01021-0

* For full contents and more information, visit: www.routledge.com/9780367445393

6TH EDITION

Academic Writing

A Handbook for International Students



Stephen Bailey Taught English internationally and at the Univ of Nottingham & Derby Univ & has previously published with Routledge

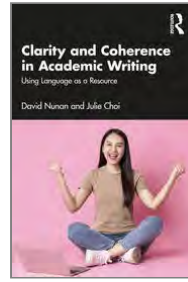
The sixth edition of this popular book has been written to help international students succeed in writing essays and reports for their English-language academic courses. Thoroughly revised and updated in a streamlined format making it even easier to use, it is designed to let readers find the support they need easily, both in the classroom and for self-study. The book consists of three parts, comprising a total of 28 units, all of which are fully cross-referenced and can be taught in conjunction with each other or used for reference. A progress check at the end of each part allows students to self-assess their learning.

Routledge
March 2025 : 320pp
Pb: 978-1-032-83417-7 : **£28.99**
Hb: 978-1-032-83418-4 : **£155**
eBook: 978-1-003-50926-4

* For full contents and more information, visit: www.routledge.com/9781032834177

Clarity and Coherence in Academic Writing

Using Language as a Resource



David Nunan, Julie Choi University of Melbourne, Australia

This book presents a lively, rich, and concise introduction to the key concepts and tools for developing clarity and coherence in academic writing. Well-known authors and linguists David Nunan and Julie Choi provide examples of the linguistic procedures that writers can draw on to enhance clarity and coherence for the reader. This resource makes complex concepts accessible to the emergent writer and illustrates how these concepts can be applied to their own writing. In-text projects and tasks invite you, the reader, to experiment with principles and ideas in developing your identity and voice as a writer.

Routledge
March 2023 : 224pp
Pb: 978-1-032-01382-4 : **£29.99**
Hb: 978-1-032-01559-0 : **£140**
eBook: 978-1-003-17909-2

* For full contents and more information, visit: www.routledge.com/9781032013824

Demystifying Academic Writing

Genres, Moves, Skills, and Strategies



Zhihui Fang

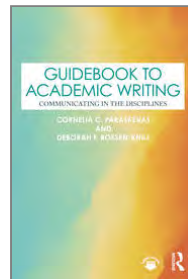
Accessible and informative, this book is designed to enhance the capacity of graduate and undergraduate students, as well as early career scholars, to write for academic purposes. Fang describes the key genres and types of academic writing, explains common rhetorical moves, offers linguistic strategies and insights to give students the skills they need for effective academic writing across genres and disciplines. Assuming no technical knowledge, this text is ideal for both non-native and native English speakers alike, and for courses in academic writing, composition, and L2 writing instruction.

Routledge
April 2021 : 286pp
Pb: 978-0-367-65354-5 : **£41.99**
Hb: 978-0-367-67508-0 : **£155**
eBook: 978-1-003-13161-8

* For full contents and more information, visit: www.routledge.com/9780367653545

Guidebook to Academic Writing

Communicating in the Disciplines



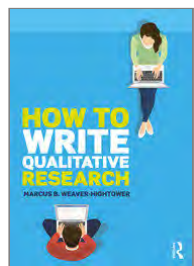
Cornelia C. Paraskevas, Deborah F. Rossen-Knill

This innovative guidebook is a concise introduction to discipline-specific academic language. Using authentic texts written by both novice and expert writers and 'translating' current, corpus-based research of academic language into a practical guide, the book gives students the tools to navigate the linguistic features of various disciplines. With exercises and additional online resources, this guidebook provides students with a range of tools they can choose from in order to create effective texts that meet discipline and reader expectations. Accessibly written, it is an essential guide for all students in humanities and sciences writing academic texts in English.

Routledge
July 2024 : 240pp
Pb: 978-1-032-48470-9 : **£39.99**
Hb: 978-1-032-48472-3 : **£155**
eBook: 978-1-003-38924-8

* For full contents and more information, visit: www.routledge.com/9781032484709

How to Write Qualitative Research



Marcus B. Weaver-Hightower University of North Dakota, USA

Qualitative research has exploded in popularity in nearly every discipline from the social sciences to health fields to business. While many qualitative textbooks explain how to conduct an interview or analyze fieldnotes, rarely do they give more than a few scant pages to the skill many find most difficult: writing. That's where *How to Write Qualitative Research* comes in. Using clear prose, helpful examples and lists, it breaks down and explains the most common writing tasks in qualitative research, and each chapter suggests step-by-step how-to approaches writers can use to tackle those tasks.

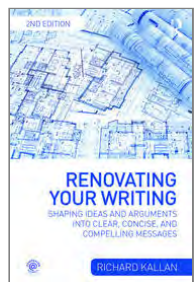
Routledge
October 2018 : 282pp
Pb: 978-1-138-06631-1 : **£45.99**
Hb: 978-1-138-06630-4 : **£155**
eBook: 978-1-315-15926-3

* For full contents and more information, visit: www.routledge.com/9781138066311

2ND EDITION

Renovating Your Writing

Shaping Ideas and Arguments into Clear, Concise, and Compelling Messages



Richard Kallan

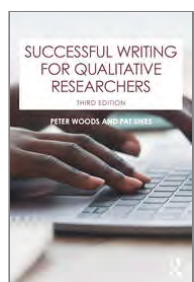
Renovating Your Writing outlines the principles of effective composition by focusing on the essential skill set and mindset every successful writer must possess. Now in its second edition, this novel text provides readers with unique strategies for crafting and revising their writing, whether for school, work, or play. The new edition emphasizes, in particular, the importance of the writer embracing a rhetorical perspective, distinguishing between formal and social media compositional styles, and appreciating the effort needed to produce clear, concise, and compelling messages.

Routledge
July 2017 : 190pp
Pb: 978-1-138-72677-2 : **£31.99**
Hb: 978-1-138-72676-5 : **£155**
eBook: 978-1-315-18660-3

* For full contents and more information, visit: www.routledge.com/9781138726772

3RD EDITION

Successful Writing for Qualitative Researchers



Peter Woods, Pat Sikes

The third edition of this text has been brought fully up to date to cover developments in funding and institutional requirements. With new material on the responsibilities of the writer, technological developments, the ability to reach wider audiences and arts-based research, this book is designed to give practical advice to aspiring and established academic writers on mind-sets, strategies, techniques and opportunities. A must-read guide for all those looking to translate their qualitative research into writing.

Routledge
March 2022 : 190pp
Pb: 978-0-367-69823-2 : **£30.99**
Hb: 978-0-367-69822-5 : **£155**
eBook: 978-1-003-14340-6

* For full contents and more information, visit: www.routledge.com/9780367698232

2ND EDITION

The Essentials of Academic Writing for International Students



Stephen Bailey Taught English internationally and at the Univ of Nottingham & Derby Univ & has previously published with Routledge

Written to help international students write essays and reports for their English-language university courses, this key title covers the essentials needed to achieve academic writing success. An easy-to-follow course that builds writing confidence and can be used both in the classroom and for self-study, this second edition has been thoroughly revised and updated to contain relevant examples, explanations and exercises. All international students wanting to maximise their academic potential will find this practical, concise and easy-to-use book an invaluable guide to writing in English for their degree courses.

Routledge
March 2024 : 252pp
Pb: 978-1-032-72170-5 : **£23.99**
Hb: 978-1-032-72173-6 : **£155**
eBook: 978-1-032-72172-9

* For full contents and more information, visit: www.routledge.com/9781032721705

5TH EDITION

Using Sources Effectively

Strengthening Your Writing and Avoiding Plagiarism



Robert A. Harris

Now in its fifth, expanded edition, *Using Sources Effectively*, Fifth Edition targets the two most prominent problems in current research-paper writing: the increase in unintentional plagiarism and the ineffective use of research source material. Designed as a supplementary textbook for both undergraduate and graduate courses, this book will help every student who uses research in writing. Included in this edition is coverage of research strategies and source selection (Chapter 2), a chapter on quoting sources effectively (Chapter 4), and a chapter on sentence patterns (Chapter 10). APA and MLA citation styles have been updated throughout the text.

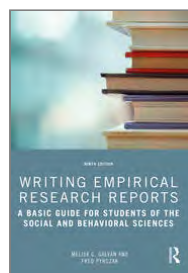
Routledge
January 2017 : 210pp
Pb: 978-1-138-28968-0 : **£60.99**
Hb: 978-1-138-28966-6 : **£185**
eBook: 978-1-315-26706-7

* For full contents and more information, visit: www.routledge.com/9781138289680

9TH EDITION

Writing Empirical Research Reports

A Basic Guide for Students of the Social and Behavioral Sciences



Melisa C. Galvan California State University, Northridge, USA

Writing Empirical Research Reports: A Basic Guide for Students of the Social and Behavioral Sciences, Ninth Edition, offers clear and practical guidance on how to write research proposals, reports, theses, and dissertations. Accompanied by online resources for students and instructors, this book is ideal for use in research methods courses, thesis/dissertation preparation courses, research seminars where writing a research report is a culminating activity, and any graduate-level seminar in which the instructor covers the vital components necessary to prepare a research manuscript for submission for publication.

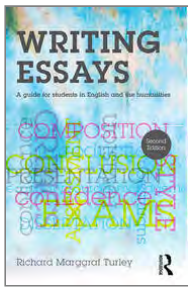
Routledge
October 2023 : 196pp
Pb: 978-1-032-13680-6 : **£59.99**
Hb: 978-1-032-13678-3 : **£145**
eBook: 978-1-003-23041-0

* For full contents and more information, visit: www.routledge.com/9781032136806

2ND EDITION

Writing Essays

A guide for students in English and the humanities



Richard Marggraf Turley Aberystwyth University, Wales.

Essays are a major form of assessment in higher education today and this is a fact that causes some writers a great deal of anxiety. Fortunately, essay writing is a skill that can be learned, like any other. Writing Essays demystifies the entire process of essay writing and reveals the tricks of the trade, making your student life easier. You'll learn how to impress tutors by discovering exactly what markers look for when they read your work. Using practical examples selected from real student assignments and tutor feedback, this book covers every aspect of composition, from introductions and conclusions, down to presentation and submission.

Routledge
November 2015 : 158pp
Pb: 978-1-138-91669-2 : **£23.99**
Hb: 978-1-138-91668-5 : **£155**
eBook: 978-1-315-68944-9

* For full contents and more information, visit: www.routledge.com/9781138916692

8TH EDITION

Writing Literature Reviews

A Guide for Students of the Social and Behavioral Sciences



Melisa C. Galvan California State University, Northridge, USA, **Jose L. Galvan** Professor Emeritus, California State University, Los Angeles.

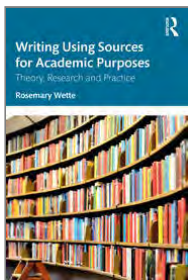
Writing Literature Reviews provides students with practical guidelines for the complex process of writing literature reviews for course projects, theses or dissertations, and research manuscripts for publication. It is ideal for use in research methods courses, thesis/dissertation preparation courses, research seminars where a literature review is expected as a culminating activity, or any course in which the instructor needs to cover the vital components necessary to prepare a literature review for a variety of audiences. The book is supported by online materials including self-test quizzes for students, and lecture slides for instructors.

Routledge
November 2024 : 288pp
Pb: 978-1-032-32868-3 : **£66.99**
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* For full contents and more information, visit: www.routledge.com/9781032328683

Writing Using Sources for Academic Purposes

Theory, Research and Practice



Rosemary Wette

Writing Using Sources for Academic Purposes: Theory, Research and Practice provides research-based information about key components of source-based writing, and the challenges it presents for novices.

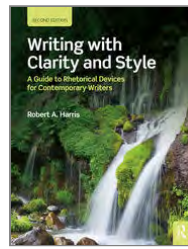
Routledge
December 2020 : 164pp
Pb: 978-0-367-17592-4 : **£41.99**
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* For full contents and more information, visit: www.routledge.com/9780367175924

2ND EDITION

Writing with Clarity and Style

A Guide to Rhetorical Devices for Contemporary Writers



Robert A. Harris

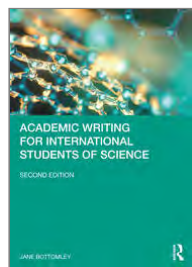
Writing with Clarity and Style, 2nd Edition, will help you to improve your writing dramatically. The book shows you how to use dozens of classical rhetorical devices to bring power, clarity, and effectiveness to your writing. You will also learn about writing styles, authorial personas, and sentence syntax as tools to make your writing interesting and persuasive. If you want to improve the appeal and persuasion of your speeches, this is also the book for you.

Routledge
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Academic Writing for International Students of Science



Jane Bottomley University of Manchester

This second edition is an accessible companion designed to help science and technology students develop the knowledge, skills and strategies needed to produce clear and coherent academic writing in their university assignments. Using authentic texts to explore the nature of scientific writing, the book covers key areas such as scientific style, effective sentence and paragraph structure, and coherence in texts and arguments. Throughout the book, a range of tasks offers the opportunity to put theory into practice. This is an invaluable tool for the busy science or technology student looking to improve their writing and reach their full academic potential.

Routledge

October 2021 : 220pp

Pb: 978-0-367-63272-4 : **£30.99**

Hb: 978-0-367-63271-7 : **£155**

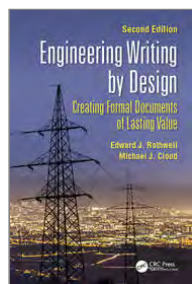
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Creating Formal Documents of Lasting Value, Second Edition



Edward J. Rothwell , Michael J. Cloud

This book shows how effective writing can be achieved by thinking like an engineer. Based on the authors' combined experience as engineering educators, the book presents a novel approach to technical writing, positioning formal writing tasks as engineering design problems with requirements, constraints, protocols, standards, and customers (readers) to satisfy. Featuring illustrative examples, chapter summaries and exercises, quick-reference tables, and recommendations for further reading, this book is packed with valuable tips and information practicing and aspiring engineers need to become effective writers.

CRC Press

January 2020 : 257pp

Pb: 978-0-367-34754-3 : **£55.99**

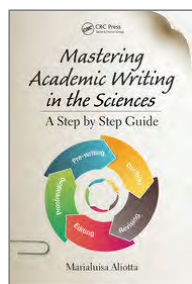
Hb: 978-0-367-89682-9 : **£125**

eBook: 978-0-429-32769-8

* For full contents and more information, visit: www.routledge.com/9780367347543

Mastering Academic Writing in the Sciences

A Step-by-Step Guide



Marialuisa Aliotta

This book provides a comprehensive and coherent step-by-step guide to writing in scientific academic disciplines. It is an invaluable resource for those working on a PhD thesis, research paper, dissertation, or report. Writing these documents can be a long and arduous experience for students and their supervisors, and even for experienced researchers. However, this book can hold the key to success. Mapping the steps involved in the writing process - from acquiring and organizing sources of information, to revising early drafts, to proofreading the final product - it provides clear guidance on what to write and how best to write it.

CRC Press

April 2018 : 200pp

Pb: 978-1-498-70147-1 : **£52.99**

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* For full contents and more information, visit: www.routledge.com/9781498701471

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Philip A. Laplante The Pennsylvania State University, Malvern, USA, **Chris Laplante**

Series: *What Every Engineer Should Know*

This practical text enables readers to write, edit, and publish materials of a technical nature, including books, articles, reports, and electronic media. Written by experienced practicing engineers, this guide complements traditional technical writing manuals through presentation of first-hand examples that help readers understand practical considerations in writing and producing technical content. The new edition includes new and updated exercises, examples, and case studies and includes new content on software/systems documentation, popular writing tools, and technologies such as generative AI. It is aimed at students and professionals in the science and engineering domains.

CRC Press

November 2025 : 271pp

Pb: 978-1-032-84374-2 : **£47.99**

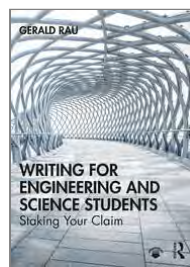
Hb: 978-1-032-84375-9 : **£160**

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* For full contents and more information, visit: www.routledge.com/9781032843742

Writing for Engineering and Science Students

Staking Your Claim



Gerald Rau

Drawing on his extensive experience of teaching international students, Gerald A. Rau provides a clear "argument structure" for students to follow when undertaking both academic and technical writing. This is the first book to make clear the different structures required for engineering versus scientific articles. Tasks and exercises are provided throughout. Using the research article as a model and covering lab reports, research proposals, dissertations, poster presentations, industry reports, emails and job applications, this book is essential reading for all students of science and engineering who are taking a course in writing, or seeking a resource to aid in their writing assignments.

Routledge

August 2019 : 324pp

Pb: 978-1-138-38825-3 : **£40.99**

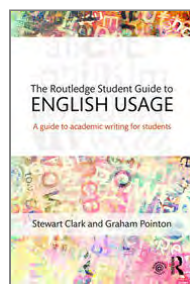
Hb: 978-1-138-38824-6 : **£155**

eBook: 978-0-429-42568-4

* For full contents and more information, visit: www.routledge.com/9781138388253

The Routledge Student Guide to English Usage

A guide to academic writing for students



Stewart Clark Norwegian University of Science and Technology, **Graham Pointon**

The Routledge Student Guide to English Usage is an authoritative A-Z guide to key aspects of English usage. Covering approximately 4000 carefully selected words, the authors focus on groups of confusable words that sound alike, look alike or are frequently mixed up. Examples of good usage are drawn from corpora such as the British National Corpus and the Corpus of Contemporary American English. A substantial reference section is also provided with stylistic guidance on academic writing skills, email standards, punctuation and grammar tips. This is the essential reference text for all students working on improving their academic writing skills.

Routledge

May 2016 : 402pp

Pb: 978-1-138-93359-0 : **£41.99**

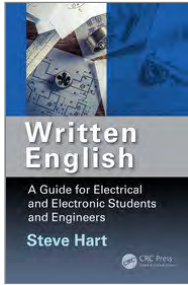
Hb: 978-1-138-93358-3 : **£155**

eBook: 978-1-315-67843-6

* For full contents and more information, visit: www.routledge.com/9781138933590

Written English

A Guide for Electrical and Electronic Students and Engineers



Steve Hart English Language Editor and Resource Writer, Cambridge, UK

This book covers all aspects of English grammar relevant to electrical and electronic engineers. It discusses working with numbers and algebra, including correct formatting procedures (both body citations and references). The book addresses vocabulary and stylistic issues, describes the level of writing expected in the field, reveals often-made mistakes, and indicates areas where engineers should focus their efforts. The text also offers unique insight into problems students and academics face on a day-to-day basis when writing in a language that is not their mother tongue.

CRC Press

December 2015 : 216pp

Pb: 978-1-498-73962-7 : **£41.99**

Hb: 978-1-138-42241-4 : **£200**

eBook: 978-1-315-21412-2

* For full contents and more information, visit: www.routledge.com/9781498739627

50 Things to Think About When Writing a Thesis

Paving Your Own Path to Submission



Donna Starks University of Auckland, New Zealand,
Margaret J. Robertson La Trobe University, Australia

This book shows thesis writers how to embrace the individual nature of writing, bringing their own unique identities and skillsets to their thesis. Each idea is presented as one that has multiple solutions depending on who the readers are and what they want to achieve. The book guides the reader on identifying their own ways of working, their own particular strengths, as well as their unique voice and how to use these as tools to navigate the process of writing and surviving the thesis. It also provides practical guidance on elements such as the literature review and methodology, considerations around language and how to deal with life after submission.

Routledge
August 2023 : 136pp
Pb: 978-1-032-34699-1 : **£28.99**
Hb: 978-1-032-34700-4 : **£145**
eBook: 978-1-003-32340-2

* For full contents and more information, visit: www.routledge.com/9781032346991

2ND EDITION

A Concise Guide to Writing a Thesis or Dissertation

Educational Research and Beyond



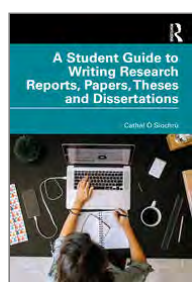
Halyna M. Kornuta, **Ron W. Germaine**

A Concise Guide to Writing a Thesis or Dissertation provides clear, concise, and intentional practice guidelines about organizing and writing a thesis or dissertation. Part I provides an overview for writing a thesis or dissertation. It describes the big picture of planning and formatting a research study, from identifying a topic through to writing quality. Part II describes the framework and substance of a research study. It models the pattern generally found in a formal, five-chapter research study.

Routledge
May 2019 : 134pp
Pb: 978-0-367-17458-3 : **£19.99**
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* For full contents and more information, visit: www.routledge.com/9780367174583

A Student Guide to Writing Research Reports, Papers, Theses and Dissertations



Cathal Ó Siochrú

This useful guide for students combines all the guidance, advice, and key tips needed to write successful research reports, theses, or dissertations, exploring, in detail, each of the elements involved in writing an academic paper. The book will guide you through all the key sections of a report including the Introduction, Literature Review, Method, Results, Discussion and more.

Routledge
November 2022 : 234pp
Pb: 978-0-367-62104-9 : **£23.99**
Hb: 978-0-367-62103-2 : **£140**
eBook: 978-1-003-10796-5

* For full contents and more information, visit: www.routledge.com/9780367621049

Dissertation Practice

A Journal for Learning



Diane Bennett Durkin

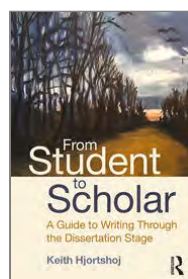
Dissertation Practice: A Journal for Learning is an interactive resource that promotes journaling to engender key dissertation practices, through activities and exercises. It is rooted in the view that students can use journaling to promote thought, and that the privacy of journal entries ensures comfort and familiarity. This personal context, along with the book's open prompts, allows students to engage in extended and alternative thinking. This is an essential resource for students in Ph.D and Ed.D programs in the social sciences and education who are using qualitative, quantitative, and mixed methods.

Routledge
October 2024 : 198pp
Pb: 978-1-032-85800-5 : **£26.99**
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* For full contents and more information, visit: www.routledge.com/9781032858005

From Student to Scholar

A Guide to Writing Through the Dissertation Stage



Keith Hjortshoj John S. Knight Writing Program, Cornell University

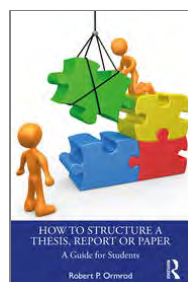
From Student to Scholar guides graduate students through the "hidden" developmental transition required in writing a dissertation and moving beyond, to become a successful scholar. Identifying common rhetorical challenges across disciplines, author Hjortshoj explains how to accommodate evolving audiences, motivations, standards, writing processes, and timelines. One full chapter is devoted to "writing blocks," and another offers advice to international students who are non-native speakers of English. The text also offers advice for managing relations with advisors and preparing for the diverse careers that PhDs, trained primarily as research specialists, actually enter.

Routledge
August 2018 : 204pp
Pb: 978-1-138-56944-7 : **£51.99**
Hb: 978-1-138-56942-3 : **£155**
eBook: 978-0-203-70426-4

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How to Structure a Thesis, Report or Paper

A Guide for Students



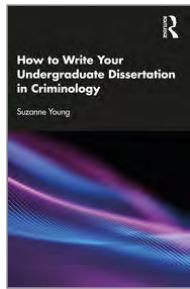
Robert P. Ormrod

This book provides concise practical guidance for students to help make their student's writing process more structured for their group work or thesis at any level. It therefore shows how to demonstrate meaningfully what they have learned in the relevant course or degree programme in a way that is accessible to the supervisor and the examiner. Suitable for students completing theses at Bachelors and Masters level, as well as other types of report-based work, and for supervisors looking for a clear and practical guide to help students with their writing process. The book will also provide a bridge to writing papers for journals in an academic career.

Routledge
November 2022 : 130pp
Pb: 978-1-032-36946-4 : **£19.99**
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How to Write Your Undergraduate Dissertation in Criminology



Suzanne Young

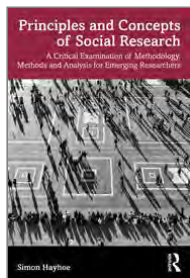
This book provides a guide for undergraduate criminology and criminal justice students undertaking their final year dissertation. Drawing on empirical case studies and including a range of resources and templates, this book takes students through each stage of the dissertation and offers useful guidance on structure and content.

Routledge
April 2022 : 146pp
Pb: 978-0-367-85999-2 : **£25.99**
Hb: 978-0-367-85998-5 : **£155**
eBook: 978-1-003-01633-5

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Principles and Concepts of Social Research

A Critical Examination of Methodology, Methods and Analysis for Emerging Researchers



Simon Hayhoe

This text covers the foundations of social science research, outlining the history and core elements of Western social research, along with a variety of topics, ranging from the history of scientific beliefs from Ancient Greece to the contemporary world. This book will be of use to core research units and training programs that universities provide at postgraduate level, at doctoral level and for early career post-doctoral researchers, to develop greater understanding of issues surrounding research. In addition to its theory, the contents of the book will include questions for discussion in seminars and small group work.

Routledge
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2ND EDITION

Thesis and Dissertation Writing in a Second Language

A Handbook for Students and their Supervisors



Brian Paltridge, Sue Starfield

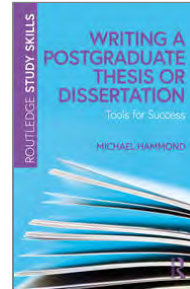
This fully updated edition is the guide for non-native speakers writing a thesis or dissertation in English. It explicitly unpacks academic writing, using accessible language and practical examples and discusses the issues that are crucial to success. These include: understanding the setting and purpose, understanding writer/reader relationships, issues of writer identity and what examiners really value. Suitable for students from all disciplines writing in a second language this book is equally valuable for supervisors of non-native speakers as it provides tasks that can be used with students to guide them in their writing.

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Writing a Postgraduate Thesis or Dissertation

Tools for Success



Michael Hammond

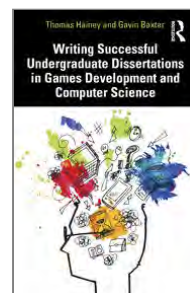
Series: *Routledge Study Skills*

Writing a Postgraduate Dissertation or Thesis discusses the challenges that students encounter in their writing and provides thoughtful advice on how to address those challenges. It provides key advice on how to write about a field of research, the tradition of methodology and methods undertaken, and the contribution to knowledge that is being made.

Routledge
July 2022 : 172pp
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Hb: 978-0-367-75281-1 : **£155**
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Writing Successful Undergraduate Dissertations in Games Development and Computer Science



Thomas Hainey School of Computing, Engineering and Physical Sciences, University of the West of Scotland,
Gavin Baxter

Writing a dissertation in the final year at university can be a daunting task, but particularly if the degree is practically oriented and implementation-based. This book provides a concise guide to producing a dissertation in Computer Science, Software Engineering or Games Development degrees with research projects typically involving design, implementation, testing and evaluation. Drawing on the authors' knowledge and experience of supervising dissertation students, the book offers a step-by-step guide to the key areas of writing a dissertation alongside real-life examples.

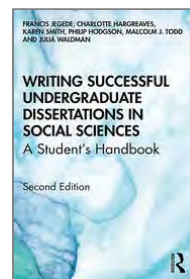
Routledge
November 2022 : 304pp
Pb: 978-0-367-51708-3 : **£23.99**
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2ND EDITION

Writing Successful Undergraduate Dissertations in Social Sciences

A Student's Handbook



Francis Jegede, Charlotte Hargreaves, Karen Smith, Philip Hodgson, Malcolm Todd, Julia Waldman

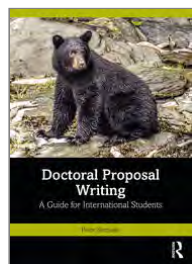
A practical guide for students undertaking their dissertation, this book uses real examples of dissertations across the Social Sciences. Providing an accessible overview of the essential steps in conducting research and writing dissertations, each chapter has clear learning outcomes and research objectives with relevant themes. Using a mixture of useful information, exercises, practical strategies, case study material and further reading, it gives hints and tips on beginning and managing a research project and working with supervisors. Packed with proven practical advice it is a dependable starting point and guide throughout the dissertation journey.

Routledge
February 2020 : 240pp
Pb: 978-0-367-25525-1 : **£25.99**
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* For full contents and more information, visit: www.routledge.com/9780367255251

Doctoral Proposal Writing

A Guide for International Students



Peter Samuels Uni of Wolverhampton Busnss Schl

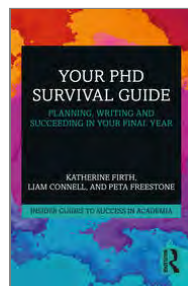
This book is an essential guide for current and prospective international doctoral students wishing to apply and study for a PhD in the UK, and other countries where courses are conducted in English. The book supports students in choosing a suitable research topic and writing an effective proposal for investigating this topic across a range of forms of doctoral research, across several disciplines, with an emphasis on international students and students with English as an additional language.

Routledge
October 2024 : 138pp
Pb: 978-1-032-56193-6 : **£28.99**
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Your PhD Survival Guide

Planning, Writing, and Succeeding in Your Final Year



Katherine Firth University of Melbourne, Australia, **Liam Connell**, **Peta Freestone**

Series: Insider Guides to Success in Academia

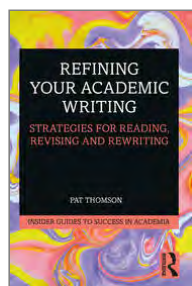
Accessible, insightful and a must-have toolkit for all doctoral students, the founders of the 'Thesis Boot Camp' intensive writing programme show how to survive and thrive through the challenging final year of writing and submitting a thesis. Drawing on an understanding of the intellectual, professional, practical and personal elements of the doctorate to help readers gain insight into what it means to finish a PhD and how to get there, this book covers common challenges and ways to resolve them. Written for students in all disciplines, and relevant to university systems around the world, this unique book expertly guides students through the final 6–12 months of the thesis.

Routledge
December 2020 : 222pp
Pb: 978-0-367-36184-6 : **£23.99**
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Refining Your Academic Writing

Strategies for Reading, Revising and Rewriting



Pat Thomson

Series: Insider Guides to Success in Academia

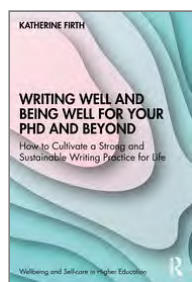
This book will help you complete your writing project and provides a reading, revising, and rewriting repertoire that you can adapt and add to. It offers ways to think about revision and a basic tool kit which will help you to identify what needs your attention and why. This accessible book draws on and extends some of the most heavily used posts on Thomson's popular academic writing blog Patter, as well as tried and tested writing workshops. Written with a light touch, this is ideal reading for doctoral and early career researchers, this book provides strategies needed to support the writing revision process.

Routledge
December 2022 : 236pp
Pb: 978-0-367-46876-7 : **£20.99**
Hb: 978-0-367-46875-0 : **£140**
eBook: 978-1-003-03168-0

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Writing Well and Being Well for Your PhD and Beyond

How to Cultivate a Strong and Sustainable Writing Practice for Life



Katherine Firth University of Melbourne, Australia

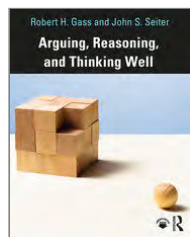
Series: Wellbeing and Self-care in Higher Education

Prioritising wellbeing alongside academic development, this book provides practical advice to help students write well, and be well, during their PhD and throughout their career. Relevant at any stage of the writing process, this book will help doctoral students and early career researchers to produce great words that people want to read, examiners want to pass and editors want to publish.

Routledge
September 2023 : 200pp
Pb: 978-1-032-31081-7 : **£23.99**
Hb: 978-1-032-31082-4 : **£145**
eBook: 978-1-003-30794-5

* For full contents and more information, visit: www.routledge.com/9781032310817

Arguing, Reasoning, and Thinking Well



Robert Gass, John Seiter

Arguing, Reasoning, and Thinking Well offers an engaging and accessible introduction to argumentation and critical thinking. Authors Gass and Seiter, renowned for their friendly writing style, include real-world examples, hypothetical dialogues, and editorial cartoons to invite readers in. The text includes a full chapter devoted to the ethics of argument, as well as content on refutation and formal logic. It is designed for students in argumentation and critical thinking courses in communication, philosophy, and psychology departments, and is suitable for students and general education courses across the curriculum.

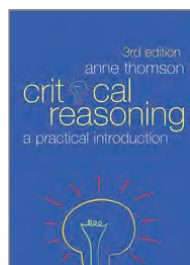
Routledge
June 2019 : 280pp
Pb: 978-0-815-37433-6 : **£86.99**
Hb: 978-0-815-37432-9 : **£175**
eBook: 978-1-351-24249-3

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3RD EDITION

Critical Reasoning

A Practical Introduction



Anne Thomson

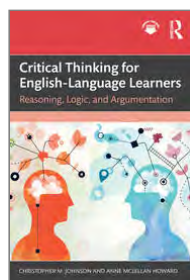
We all engage in the process of reasoning, but we don't always pay attention to whether we are doing it well. This book offers the opportunity to practise reasoning in a clear-headed and critical way, with the aims of developing an awareness of the importance of reasoning well and of improving the reader's skill in analyzing and evaluating arguments. Anne Thomson has updated and revised the book to include fresh and topical examples, and new chapters on evaluating the credibility of evidence and decision making and dilemmas. By the end of the book students should be able to identify flaws in arguments, analyze the reasoning in newspaper articles, books and speeches, assess the credibility of evidence and authorities and approach any topic with the ability to reason and think critically.

Routledge
September 2008 : 256pp
Pb: 978-0-415-44587-0 : **£40.99**
Hb: 978-0-415-44586-3 : **£155**
eBook: 978-0-203-87099-0

* For full contents and more information, visit: www.routledge.com/9780415445870

Critical Thinking for English-Language Learners

Reasoning, Logic, and Argumentation



Christopher M. Johnson, Anne McLellan Howard

Critical Thinking for English-Language Learners is an accessible introduction to critical thinking and the use of informal logic for learners of English. Critical thinking skills are key to helping students learn how to reason in English. By developing informal logic skills, students can develop their critical thinking abilities to better assess why different types of arguments are successful or unsuccessful. Providing students with key skills to make and critique arguments in English, this book is a key resource for beginning and intermediate learners of English studying Critical Thinking, English for Academic Purposes, and Introduction to Philosophy.

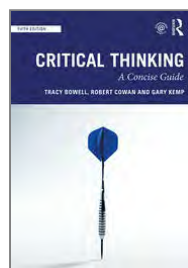
Routledge
February 2025 : 248pp
Pb: 978-1-032-75247-1 : **£41.99**
Hb: 978-1-032-75248-8 : **£155**
eBook: 978-1-003-47307-7

* For full contents and more information, visit: www.routledge.com/9781032752471

5TH EDITION

Critical Thinking

A Concise Guide



Tracy Bowell, Robert Cowan, Gary Kemp University of Glasgow, UK

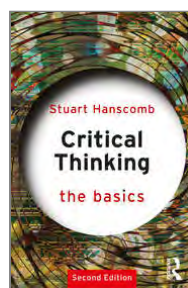
We are frequently confronted with arguments. Critical Thinking equips students with the concepts and techniques used in the analysis and assessment of arguments whatever the context. Through precise and accessible discussion, this book provides the tools to become a successful critical thinker, who can act and believe in accordance with good reasons, and who can articulate and make explicit those reasons. This fifth edition has been revised and updated throughout, including an expanded range of 'complete examples', the introduction of Venn diagrams, and the discussion of fake news and related phenomena arising in the contemporary scene.

Routledge
August 2019 : 348pp
Pb: 978-0-815-37143-4 : **£39.99**
Hb: 978-0-815-37142-7 : **£155**
eBook: 978-1-351-24373-5

* For full contents and more information, visit: www.routledge.com/9780815371434

2ND EDITION

Critical Thinking: The Basics



Stuart Hanscomb University of Glasgow, UK

Series: *The Basics*

An accessible and engaging introduction to the field of critical thinking, drawing on philosophy, communication and psychology. This 2nd edition has been revised and updated throughout and includes a new chapter on emotion and argument and how to build persuasive arguments. There are also many fresh examples, including conspiracy theories, trust, leadership and cultural cognition. With updated discussion questions/exercises and suggestions for further reading, this book is an essential read for students approaching the field of critical thinking for the first time, and for the general reader wanting to improving their thinking skills.

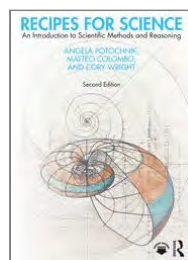
Routledge
June 2023 : 286pp
Pb: 978-1-032-16299-7 : **£20.99**
Hb: 978-1-032-16301-7 : **£145**
eBook: 978-1-003-24794-4

* For full contents and more information, visit: www.routledge.com/9781032162997

2ND EDITION

Recipes for Science

An Introduction to Scientific Methods and Reasoning



Angela Potochnik, Matteo Colombo, Cory Wright Tilburg University, The Netherlands

Today, scientific literacy is an essential aspect of any undergraduate education. Recipes for Science responds to this need by providing an accessible introduction to the nature of science and scientific methods, reasoning, and concepts

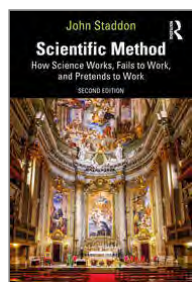
Routledge
April 2024 : 378pp
Pb: 978-1-032-29096-6 : **£45.99**
Hb: 978-1-032-29097-3 : **£185**
eBook: 978-1-003-30000-7

* For full contents and more information, visit: www.routledge.com/9781032290966

2ND EDITION

Scientific Method

How Science Works, Fails to Work, and Pretends to Work



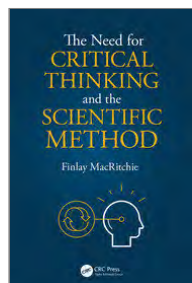
John Staddon Duke University, USA

This expanded second edition of *Scientific Method* shows how science works, fails to work, or pretends to work, by looking at examples from physics, biomedicine, psychology, sociology, and economics. *Scientific Method* is essential reading for students and professionals trying to make sense of the role of science in society, and of the meaning, value, and limitations of scientific methodology.

Routledge
June 2024 : 226pp
Pb: 978-1-032-65771-4 : **£33.99**
Hb: 978-1-032-68389-8 : **£155**
eBook: 978-1-032-68387-4

* For full contents and more information, visit: www.routledge.com/9781032657714

The Need for Critical Thinking and the Scientific Method



Finlay MacRitchie Kansas State University, Manhattan, USA

The book exposes many of the misunderstandings about the scientific method and its application to critical thinking. It argues for a better understanding of the scientific method and for nurturing critical thinking in the community. This knowledge helps the reader to analyze issues more objectively, and warns about the dangers of bias and propaganda. The principles are illustrated by considering several issues that are currently being debated. These include anthropogenic global warming (often loosely referred to as climate change), dangers to preservation of the Great Barrier Reef, and the expansion of the gluten-free food market and genetic engineering.

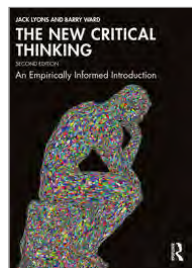
CRC Press
May 2018 : 152pp
Pb: 978-0-815-36775-8 : **£48.99**
Hb: 978-0-815-36815-1 : **£160**
eBook: 978-1-351-25587-5

* For full contents and more information, visit: www.routledge.com/9780815367758

2ND EDITION

The New Critical Thinking

An Empirically Informed Introduction



Jack Lyons, Barry Ward

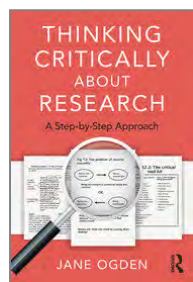
This highly innovative text aims to improve real-world critical thinking, incorporating insights from epistemology and philosophy of science to formulate best practices for assessing information sources and circumnavigate our natural intellectual blind spots. The book covers introductory logic in a way that emphasizes practical application, rather than formal completeness. This new edition provides ample resources and exercises for students and instructors alike both in-text and online.

Routledge
May 2024 : 412pp
Pb: 978-1-032-31728-1 : **£73.99**
Hb: 978-1-032-31730-4 : **£155**
eBook: 978-1-003-31102-7

* For full contents and more information, visit: www.routledge.com/9781032317281

Thinking Critically about Research

A Step by Step Approach



Jane Ogden

This book is designed to help readers develop a critical understanding of evidence and the ways in which evidence is presented, and to challenge the information they receive in both academic and non-academic sources. The author presents a step by step approach with a focus on knowing methods, culminating in a bespoke 'critical tool kit' which offers a practical checklist designed to be used when carrying out research. There are also learning features including tasks and worked examples, drawing on real research studies. This is an essential resource for students and researchers, and those putting research into practice, who want to have better critical thinking skills.

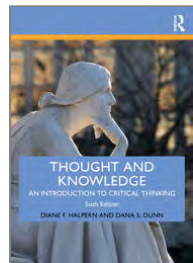
Routledge
December 2018 : 176pp
Pb: 978-0-367-00020-2 : **£40.99**
Hb: 978-0-367-00019-6 : **£155**
eBook: 978-0-429-44496-8

* For full contents and more information, visit: www.routledge.com/9780367000202

6TH EDITION

Thought and Knowledge

An Introduction to Critical Thinking



Diane F. Halpern Claremont McKenna College, USA,
Dana S. Dunn Moravian College, USA

Thought and Knowledge applies theory and research from the learning sciences to teach students the critical thinking skills that they need to succeed in today's world. The text is grounded in psychological science and brought to life through humorous and engaging language and numerous practical and real-world examples and anecdotes. Critical thinking skills are presented in every chapter, empowering students to learn more efficiently, research more productively, and present logical, critical, and informed arguments. The skills are reviewed at the end of the chapter, and a complete list of skills with definitions and examples are included in the appendix.

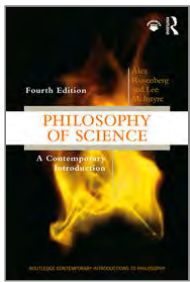
Routledge
October 2022 : 428pp
Pb: 978-1-138-65517-1 : **£69.99**
Hb: 978-1-138-65516-4 : **£220**
eBook: 978-1-032-32316-9 : **£61.99**

* For full contents and more information, visit: www.routledge.com/9781138655171

4TH EDITION

Philosophy of Science

A Contemporary Introduction

**Alex Rosenberg, Lee McIntyre***Series: Routledge Contemporary Introductions to Philosophy*

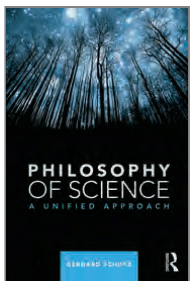
Any serious student attempting to better understand the nature, methods, and justification of science will value this book. Weaving lucid explanations with clear analyses, the volume is as a much-used, thematically-oriented introduction to the field. The new edition has been thoroughly rewritten based on instructor and student feedback, to improve readability and accessibility, without sacrificing depth. It retains all of the logically structured, extensive coverage of earlier editions, which the journal Teaching Philosophy called, "the industry standard" and "essential reading" in a 2010 review.

Routledge
November 2019 : 308pp
Pb: 978-1-138-33151-8 : **£49.99**
Hb: 978-1-138-33148-8 : **£155**
eBook: 978-0-429-44726-6

* For full contents and more information, visit: www.routledge.com/9781138331518

Philosophy of Science

A Unified Approach

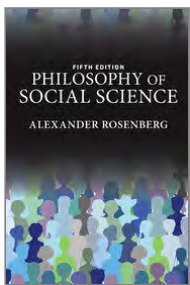
**Gerhard Schurz** Dusseldorf University, Germany,
Gerhard Schurz

Philosophy of Science: A Unified Approach combines an elementary introduction to philosophy of science with an integrated survey of all of its important subfields. Focusing on the methodological unity of the sciences, the book provides chapters with introductory sections, followed by complementary, advanced topics. By restricting the teaching materials to the introductory sections, one obtains the basis for a semester-long course. Covering all of the material contained in the book fills a year-long course.

Routledge
November 2013 : 480pp
Pb: 978-0-415-82936-6 : **£52.99**
Hb: 978-0-415-82934-2 : **£155**
eBook: 978-0-203-36627-1

* For full contents and more information, visit: www.routledge.com/9780415829366

5TH EDITION

Philosophy of Social Science**Alexander Rosenberg**

Philosophy of Social Science provides a tightly argued yet accessible introduction to the philosophical foundations of the human sciences, including economics, anthropology, sociology, political science, psychology, history, and the disciplines emerging at the intersections of these subjects with biology. Philosophy is unavoidable for social scientists because the choices they make in answering questions in their disciplines force them to take sides on philosophical matters. Conversely, the philosophy of social science is equally necessary for philosophers since the social and behavior sciences must inform their understanding of human action, norms, and social institutions.

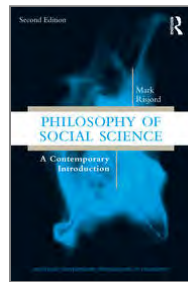
Routledge
July 2015 : 360pp
Pb: 978-0-813-34973-2 : **£49.99**
Hb: 978-0-367-09807-0 : **£155**
eBook: 978-0-429-49484-0

* For full contents and more information, visit: www.routledge.com/9780813349732

2ND EDITION

Philosophy of Social Science

A Contemporary Introduction

**Mark Risjord** Emory University, USA*Series: Routledge Contemporary Introductions to Philosophy*

This accessible text offers a comprehensive overview of debates in the field, with special attention to new research programs. Topics include the relationship of social policy to social science, interpretive research, cognitive and evolutionary explanations, intentional action explanation, rational choice theory, conventions and social norms, joint intentionality, causal inference, and experimentation. The Second Edition provides updates with the most recent literature and adds two new chapters: one on modeling and one on the role of race and gender in the social sciences.

Routledge
July 2022 : 336pp
Pb: 978-1-032-07586-0 : **£45.99**
Hb: 978-1-032-07587-7 : **£200**
eBook: 978-1-003-20779-5

* For full contents and more information, visit: www.routledge.com/9781032075860

A Dictionary of Social Research Methodology



Martyn Hammersley The Open University, UK

This accessible book offers a detailed guide to a wide range of methodological concepts, both those of a more philosophical kind and those that are more technical in character: from constructionism to critical realism, regression analysis to grounded theory, odds ratios to triangulation. Providing clear definitions for a wide range of methodological concepts from across the social sciences, this is an essential resource for all who have an interest in social research methodology.

Routledge
September 2024 : 180pp
Pb: 978-1-032-82213-6 : **£39.99**
Hb: 978-1-032-82215-0 : **£155**
eBook: 978-1-003-50350-7

* For full contents and more information, visit: www.routledge.com/9781032822136

Are You Making a Meal Out of Research?

A Recipe for Research Success



Steve Reay, Cassie Khoo, Gareth Terry, Guy Collier, Trent Dallas, Valance Smith

Research methods in a comic! This visual guide to common research methods paradigms will get you started on thinking about your research journey - what research is and understanding different types of methods, how you choose them, and how you get started. The book includes several worksheets to start making your own research menu and further reading to learn more. Suitable for upper level undergraduate and first level postgraduate students in the social and behavioural sciences, healthcare, and those interested in indigenous and Māori research methods.

Routledge
May 2023 : 72pp
Pb: 978-1-032-39232-5 : **£16.99**
Hb: 978-1-032-39230-1 : **£145**
eBook: 978-1-003-34892-4

* For full contents and more information, visit: www.routledge.com/9781032392325

A-Z of Digital Research Methods



Catherine Dawson

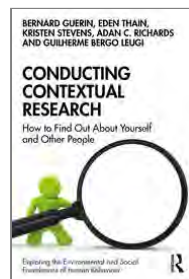
This book provides a quick and easy, alphabetical reference guide for any student or researcher looking for an introduction to digital research methods. It provides a pathway through the often confusing digital research landscape, giving a concise introduction to each method.

Routledge
July 2019 : 424pp
Pb: 978-1-138-48680-5 : **£29.99**
Hb: 978-1-138-48679-9 : **£140**
eBook: 978-1-351-04467-7

* For full contents and more information, visit: www.routledge.com/9781138486805

Conducting Contextual Research

How to Find Out About Yourself and Other People



Bernard Guerin University of South Australia, Australia,
Eden Thain, Kristen Stevens, Adan C. Richards, Guilherme Bergo Leugi

Series: Exploring the Environmental and Social Foundations of Human Behaviour

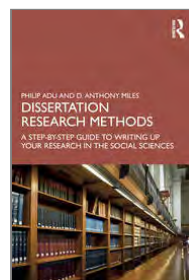
This innovative book proposes an entirely new approach to social research, presenting practical ways to discover people's life contexts in order to understand why they do what they do, which is essential for any forms of research that need to understand people. Conducting Contextual Research is essential reading for postgraduate students and professionals in the fields of counselling, psychology and social work, and will be useful to anyone conducting research or inquiries to understand human behaviour, including academic researchers, detectives, intelligence operators, social workers, government service researchers, social policy analysts, and biographers.

Routledge
June 2024 : 190pp
Pb: 978-1-032-60818-1 : **£46.99**
Hb: 978-1-032-60825-9 : **£145**
eBook: 978-1-003-46063-3

* For full contents and more information, visit: www.routledge.com/9781032608181

Dissertation Research Methods

A Step-by-Step Guide to Writing Up Your Research in the Social Sciences



Philip Adu The National Centre for Academic and Dissertation Excellence, The Chicago School of Professional Psychology, USA, **D. Anthony Miles**

Dissertation Research Methods: A Step-by-Step Guide to Writing Up Your Research in the Social Sciences focuses specifically on methodology when planning, writing and submitting your dissertation thesis. Written by two methodology experts in the social sciences, the book provides a step-by-step guide through each stage of the dissertation process. This compact book will be of use to all graduate students and their supervisors in the Social Sciences, Education and Behavioural Sciences, looking for a guide for working with robust and defensible methodological principles in their dissertation research and theses.

Routledge
September 2023 : 470pp
Pb: 978-1-032-21385-9 : **£45.99**
Hb: 978-1-032-21383-5 : **£155**
eBook: 978-1-003-26815-4

* For full contents and more information, visit: www.routledge.com/9781032213859

Doing Academic Research

A Practical Guide to Research Methods and Analysis



Ted Gournelos

Doing Academic Research is a concise, accessible, and tightly organized overview of the research process in the humanities, social sciences, and business. Rather than a book about research, this is a practical guide to doing research, and guides budding researchers along the process of developing an effective workflow, where to go for help, and how to actually complete the project. It addresses diversity in abilities, interest, discipline, and ways of knowing by focusing not just on the process of conducting any one method in detail, but also the ways in which someone might choose a research method and conduct it successfully.

Routledge
May 2019 : 208pp
Pb: 978-0-367-20793-9 : **£19.99**
Hb: 978-0-367-20791-5 : **£140**
eBook: 978-0-429-26355-2

* For full contents and more information, visit: www.routledge.com/9780367207939

Literature Review and Research Design

A Guide to Effective Research Practice



Dave Harris

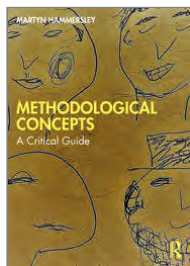
Graduate students executing their first independent research project often struggle to use academic literature effectively in the process of designing, developing, executing, and presenting their work. This book gives an overview of how to develop an effective research practice supported by the academic literature. Particularly suitable for those pursuing professional doctorates in subjects such as education and psychology.

Routledge
December 2019 : 176pp
Pb: 978-0-367-25037-9 : **£29.99**
Hb: 978-0-367-25036-2 : **£140**
eBook: 978-0-429-28566-0

* For full contents and more information, visit: www.routledge.com/9780367250379

Methodological Concepts

A Critical Guide



Martyn Hammersley The Open University, UK

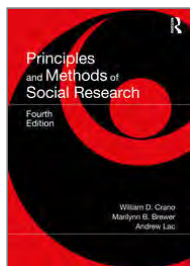
Methodological Concepts: A Critical Guide clarifies many key terms and issues in social research methodology. It outlines the conventional meanings of these terms, but also addresses their contentious character. The aim is to offer interpretations of them that provide a coherent conception of the nature of social science.

Routledge
February 2023 : 186pp
Pb: 978-1-032-39574-6 : **£36.99**
Hb: 978-1-032-39573-9 : **£140**
eBook: 978-1-003-35035-4

* For full contents and more information, visit: www.routledge.com/9781032395746

4TH EDITION

Principles and Methods of Social Research



William D. Crano Claremont Graduate University, USA,
Marilynn B. Brewer Ohio State University, USA, **Andrew Lac** Claremont Graduate University, USA

Through a multi-methodology approach, Principles and Methods of Social Research, Fourth Edition covers the latest research techniques and designs and guides readers toward the design and conduct of social research from the ground up. Applauded for its comprehensive coverage, the breadth and depth of content of this new edition is unparalleled. It is intended for graduate or advanced undergraduate courses in research methods in psychology, communication, sociology, education, public health, and marketing, and further appeals to researchers in various fields of social research, such as social psychology and communication.

Routledge
July 2023 : 486pp
Pb: 978-1-032-22240-0 : **£94.99**
Hb: 978-1-032-22241-7 : **£155**
eBook: 978-1-003-27173-4

* For full contents and more information, visit: www.routledge.com/9781032222400

5TH EDITION

Principles of Research in Behavioral Science



Mary E. Kite, **Bernard E. Whitley, Jr** Ball State University, USA

Now in its fifth edition, this invaluable textbook provides a comprehensive overview of research methods in the behavioral sciences, emphasizing the conceptual challenges inherent in scientific inquiry. Organized to mirror each stage of the research process, this text guides readers through the process, from formulating questions, to collecting data, to interpreting results. Ideal for advanced undergraduate, graduate, and post-graduate students seeking a strong foundation in research methods, it also serves as a valuable reference for seasoned researchers looking to refresh their knowledge.

Routledge
July 2025 : 806pp
Hb: 978-1-032-72058-6 : **£130**
IEPB: 978-1-032-72059-3 : **£45.99**
eBook: 978-1-032-72060-9

* For full contents and more information, visit: www.routledge.com/9781032720586

2ND EDITION

Research Design, Second Edition

Quantitative, Qualitative, Mixed Methods, Arts-Based, and Community-Based Participatory Research Approaches



Patricia Leavy

With a new chapter on the literature review, this accessible step-by-step guide to using the five major approaches to research design is now in a thoroughly revised second edition. The prior edition's user-friendly features are augmented by a new companion website with worksheets keyed to each chapter. For each approach, the text presents a template for a research proposal and explains how to conceptualize and fill in every section. Interdisciplinary research examples draw on current events and social justice issues. PowerPoints and chapter tests with answer keys are available to instructors using the book in a course.

Guilford Press
January 2023 : 323pp
Pb: 978-1-462-54897-2 : **£45.99**
Hb: 978-1-462-55088-3 : **£69.99**

* For full contents and more information, visit: www.routledge.com/9781462548972

2ND EDITION

Research Methods

The Key Concepts



Michael Hammond University of Warwick, UK, **Jerry Wellington**

Series: *Routledge Key Guides*

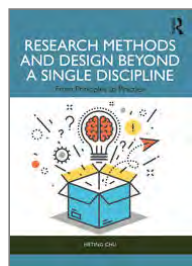
This invaluable resource provides a comprehensive overview of the many methods and methodologies of social research. Each entry provides a critical definition and examines the value and difficulties of a particular method or methodology of concept across different fields of social research. With thematic further reading stretching across the social sciences, this second edition will help readers develop a firm understanding of the rationale and principles behind key research methods, and is a must-have for new researchers at all levels, from undergraduate to postgraduate and beyond.

Routledge
September 2020 : 232pp
Pb: 978-0-367-17874-1 : **£23.99**
Hb: 978-0-367-17873-4 : **£115**
eBook: 978-0-429-05816-5

* For full contents and more information, visit: www.routledge.com/9780367178741

Research Methods and Design Beyond a Single Discipline

From Principles to Practice



Heting Chu

This book presents and discusses 15 research methods after an overview of each, an illustration of the research process and an examination of related topics. The focus of this book is on data collection techniques and research design. This book is essential for masters and doctoral students, and researchers who wish to learn about research methods and design comprehensively and systematically, as well as instructors delivering research methods courses across the social and behavioral sciences.

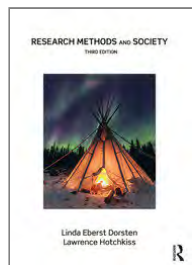
Routledge
April 2024 : 360pp
Pb: 978-0-367-89885-4 : **£61.99**
Hb: 978-0-367-89883-0 : **£155**
eBook: 978-1-003-02171-1

* For full contents and more information, visit: www.routledge.com/9780367898854

3RD EDITION

Research Methods and Society

Foundations of Social Inquiry



Linda Eberst Dorsten , Lawrence Hotchkiss

Research Methods and Society, Third Edition is designed to help undergraduate students acquire basic skills in methods of social science research. These skills provide a foundation for understanding research findings in the social sciences and for conducting social research. Just as important, such skills sets and principles can be applied to everyday situations to make sense of endless stream of claims and counterclaims confronted daily in print and electronic forms, including social media.

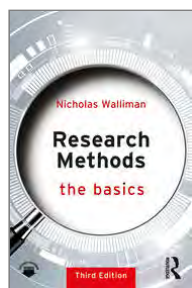
Routledge
December 2018 : 410pp
Pb: 978-0-815-36615-7 : **£96.99**
Hb: 978-0-815-36616-4 : **£245**
eBook: 978-1-351-25981-1

* For full contents and more information, visit: www.routledge.com/9780815366157

3RD EDITION

Research Methods

The Basics



Nicholas Walliman Oxford Brookes University, UK

Series: The Basics

Research Methods: The Basics is an accessible, user-friendly introduction to the different aspects of research theory, methods and practice. This third edition provides an expanded and fully updated resource suitable for students and practitioners in a wide range of disciplines including the natural sciences, social sciences and humanities. It is structured in two parts - the first covers the nature of knowledge and the reasons for doing research, the second explains the specific methods used to conduct an effective research project and how to propose, plan, carry out and write up a research project.

Routledge
December 2021 : 280pp
Pb: 978-0-367-69408-1 : **£20.99**
Hb: 978-0-367-69407-4 : **£150**
eBook: 978-1-003-14169-3

* For full contents and more information, visit: www.routledge.com/9780367694081

2ND EDITION

Social Research Methods by Example

Applications in the Modern World



Yasemin Besen-Cassino , Dan Cassino Fairleigh Dickson University

This book sharpens students' understanding of the research process and the essential methods that researchers use to perform their work on the cutting edge of the social sciences. The new edition features updated examples across the chapters, reflecting new directions within the social sciences and both a diversity of voices and research output in recent years. The authors also expand their chapter overviews in key areas and weave discussion of validity and ethics carefully into the fabric of each chapter's focus. Written not only to introduce students to the basic principles of social science research, this book provides readers with a toolkit to carry out the process on their own.

Routledge
May 2023 : 342pp
Pb: 978-1-032-20920-3 : **£40.99**
Hb: 978-1-032-21005-6 : **£145**
eBook: 978-1-003-26632-7

* For full contents and more information, visit: www.routledge.com/9781032209203

The Illustrated Guide to Social Science Research



Divya Sharma

This accessible and engaging textbook helps students to get to grips with key concepts, issues, and practices in social science research through the use of fun and informative illustrations and examples.

Routledge
July 2024 : 248pp
Pb: 978-1-032-32377-0 : **£39.99**
Hb: 978-1-032-32379-4 : **£155**
eBook: 978-1-003-31473-8

* For full contents and more information, visit: www.routledge.com/9781032323770

2ND EDITION

The Research Companion

A practical guide for those in the social sciences, health and development



Petra M. Boynton University College London, UK

Books on social and behavioral research too often focus on theory and methods and overlook the practical skills needed to undertake a research project. The Research Companion brings hard-earned lessons from the real world to offer clear and honest advice to all students and practitioners within the social and health sciences. The structure of the book makes it useful for researchers at all levels of experience: the numerous examples and case histories make it ideal for students just beginning their first research project, while the breadth of coverage and wealth of practical tips will also help more experienced researchers.

Routledge
September 2016 : 300pp
Pb: 978-1-138-91761-3 : **£52.99**
Hb: 978-1-138-91760-6 : **£155**
eBook: 978-1-315-68890-9

* For full contents and more information, visit: www.routledge.com/9781138917613

2ND EDITION

The Researcher's Toolkit

The Complete Guide to Practitioner Research



David Wilkinson Research Fellow within the Work-Based Learning Unit at the University of Leeds, **Dennis Dokter**

Designed for those undertaking research for the first time, the second edition of *The Researcher's Toolkit* is a practical and accessible guide for all those partaking in small-scale research. Jargon-free and assuming no prior knowledge, it covers the entire research process, from defining a research topic or question through to its completion. This book is a must-read guide for students and budding researchers as well as educators seeking to explain academic research and writing to their pupils. It will benefit anyone looking to complete a research project whether inside academia or beyond.

Routledge

May 2023 : 178pp

Pb: 978-1-032-01810-2 : **£28.99**

Hb: 978-1-032-01809-6 : **£145**

eBook: 978-1-003-18015-9

* For full contents and more information, visit: www.routledge.com/9781032018102

11TH EDITION

Understanding Research Methods

An Overview of the Essentials



Michelle Newhart, **Mildred L. Patten**

A perennial bestseller since 1997, this updated eleventh edition of *Understanding Research Methods* provides a detailed overview of all the important concepts traditionally covered in a research methods class. It covers the principles of both qualitative and quantitative research, and how to interpret statistics without computations, so is suitable for all students regardless of their math background. The book is organized so that each concept is treated independently and can be used in any order without resulting in gaps in knowledge—allowing it to be easily and precisely adapted to any course.

Routledge

June 2023 : 528pp

Pb: 978-0-367-55118-6 : **£96.99**

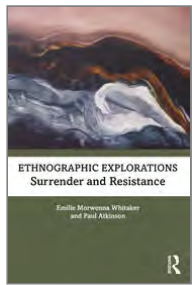
Hb: 978-0-367-55117-9 : **£255**

eBook: 978-1-003-09204-9

* For full contents and more information, visit: www.routledge.com/9780367551186

Ethnographic Explorations

Surrender and Resistance



Emilie Morwenna Whitaker Salford University, UK, **Paul Atkinson**

In *Ethnographic Explorations: Surrender and Resistance*, Whitaker and Atkinson, two experienced ethnographers, explore the complexities of fieldwork, analysis and writing from new perspectives. It takes the opportunity to reflect on Ethnography not just as a methodological perspective, but at a fundamental level. The book is intended for researchers at postgraduate and postdoctoral levels and at experienced researchers who want to read a different, sometimes challenging, take on ethnographic research and its outcomes.

Routledge
March 2023 : 184pp
Pb: 978-0-367-17441-5 : **£38.99**
Hb: 978-0-367-17440-8 : **£140**
eBook: 978-0-429-05680-2

* For full contents and more information, visit: www.routledge.com/9780367174415

Ethnographic Research in the Social Sciences



Edited by **Madhulika Sahoo**, **S. Jeyavelu**, **Anjali Kurane**

This book is an essential guide to scientifically conducting contemporary ethnographic research at undergraduate, postgraduate and doctoral levels in the social sciences, the humanities, and business studies. It addresses the methodological challenges of ethnographic research across the social sciences and highlights present time research areas, including digital ethnography, artificial intelligence, classroom pedagogy, hybrid organization and many more. A step-by-step, student friendly text, this book will be essential supplementary reading across the social sciences and the humanities, especially for those conducting fieldwork in the Global South.

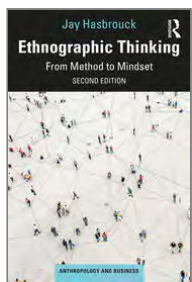
Routledge India
June 2023 : 282pp
Pb: 978-1-032-49233-9 : **£40.99**
Hb: 978-1-032-48008-4 : **£155**
eBook: 978-1-003-39277-4

* For full contents and more information, visit: www.routledge.com/9781032492339

2ND EDITION

Ethnographic Thinking

From Method to Mindset



Jay Hasbrouck

Series: Anthropology and Business

This second edition of *Ethnographic Thinking: From Method to Mindset* serves as a primer for practitioners who want to apply ethnography to real-world challenges and commercial ventures. This new edition now includes a section in each chapter focusing on practical advice to help readers activate key insights in their work. This work is essential reading for managers and strategists who want to tap into the full potential that an ethnographic perspective offers. It will also be of value to students and practitioners of applied ethnography, as well as professionals who would like to optimize the value of ethnographic thinking in their organizations.

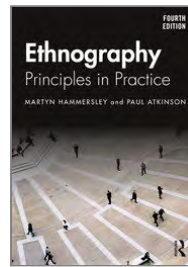
Routledge
April 2024 : 156pp
Pb: 978-1-032-46309-4 : **£40.99**
Hb: 978-1-032-46308-7 : **£155**
eBook: 978-1-003-38107-5

* For full contents and more information, visit: www.routledge.com/9781032463094

4TH EDITION

Ethnography

Principles in Practice



Martyn Hammersley The Open University, UK, **Paul Atkinson** Cardiff University, UK

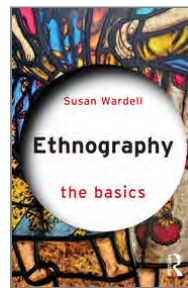
This edition has been expertly updated to reflect the important developments in digital and mobile technologies and social media. The ease with which recordings, audio or video, as well as photographs, can be produced via the use of mobile devices has opened up new tools and foci for ethnographers.

Routledge
April 2019 : 292pp
Pb: 978-1-138-50446-2 : **£45.99**
Hb: 978-1-138-50445-5 : **£170**
eBook: 978-1-315-14602-7

* For full contents and more information, visit: www.routledge.com/9781138504462

Ethnography

The Basics



Susan Wardell

Series: The Basics

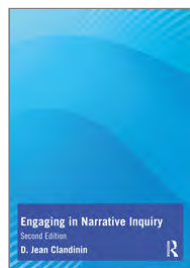
Ethnography: The Basics introduces a broad and beginner audience to ethnography, as a research methodology with diverse applications. By using everyday language, and developing a warm and inclusive tone, the book provides an accessible entry point to the topic.

Routledge
May 2025 : 278pp
Pb: 978-1-032-52012-4 : **£19.99**
Hb: 978-1-032-51311-9 : **£155**
eBook: 978-1-003-40488-0

* For full contents and more information, visit: www.routledge.com/9781032520124

2ND EDITION

Engaging in Narrative Inquiry



D. Jean Clandinin

In *Engaging in Narrative Inquiry*, Second Edition, D. Jean Clandinin, a pioneer in narrative research, updates her classic formulation on narrative inquiry, clarifying, extending, and refining methods. The increasing interest in narrative inquiry as research methodology across disciplines makes this an essential guide and an excellent text for graduate courses in qualitative inquiry, education and nursing research, sociology, and all courses in autobiographical and narrative research and inquiry.

Routledge
September 2022 : 176pp
Pb: 978-1-032-14610-2 : **£45.99**
Hb: 978-1-032-14609-6 : **£155**
eBook: 978-1-003-24014-3

* For full contents and more information, visit: www.routledge.com/9781032146102

2ND EDITION

Essentials of Qualitative Inquiry



Maria J. Mayan

Series: Qualitative Essentials

Essentials of Qualitative Inquiry, Second Edition is the key resource for introducing applied researchers into the qualitative tradition due to its clear exposition, step-by-step approach, and emphasis on methodological coherence. Concise and inexpensive, this edition includes new material on methods, sampling, and analysis and introduces current trends in community-based research and arts-based research, among other updates.

Routledge
May 2023 : 328pp
Pb: 978-1-629-58327-3 : **£31.99**
Hb: 978-1-629-58326-6 : **£135**
eBook: 978-1-003-38575-2

* For full contents and more information, visit: www.routledge.com/9781629583273

2ND EDITION

Qualitative Research

The Essential Guide to Theory and Practice



Maggi Savin-Baden Prof of Higher Education Research at Coventry University, UK, **Claire Howell Major** Prof of Higher Education at the University of Alabama, USA

The second edition of *Qualitative Research* is a one-stop resource for all those approaching qualitative research for the first time as well as those revisiting core concepts and issues. It presents a comprehensive overview of this rapidly developing field of inquiry, cleverly combined with practical, hands-on advice on how to conduct a successful qualitative study. This book is enhanced with the addition of online Instructor and Student Resources including videos, diagrams, an instructor manual, PowerPoint slides and links to further resources. This new edition is an indispensable companion and makes for ideal reading for all those involved in qualitative research worldwide.

Routledge
October 2025 : 664pp
Pb: 978-1-032-77458-9 : **£45.99**
Hb: 978-1-032-77460-2 : **£155**
eBook: 978-1-003-48319-9

* For full contents and more information, visit: www.routledge.com/9781032774589

Qualitative Research Using Social Media



Gwen Bouvier, Joel Rasmussen

This book shows how to conduct qualitative research projects using social media data. It takes the reader through the stages of choosing data, formulating a research question, and choosing and applying method(s).

Routledge
March 2022 : 214pp
Pb: 978-0-367-33347-8 : **£45.99**
Hb: 978-0-367-33350-8 : **£155**
eBook: 978-0-429-31933-4

* For full contents and more information, visit: www.routledge.com/9780367333478

2ND EDITION

Thinking with Theory in Qualitative Research



Alecia Y. Jackson Appalachian State University, USA,
Lisa A. Mazzei University of Oregon, USA

Thinking with Theory in Qualitative Research, Second Edition demonstrates how to enact various philosophical concepts in practices of inquiry, effectively opening up the process of thought in qualitative studies. In the ten years since the first edition was published, *Thinking with Theory* has become a vanguard text in the field of postfoundational inquiry for its accessible but thorough introductions to philosophically informed inquiry. This book is for experienced and novice researchers, and students in introductory, general, and advanced qualitative inquiry courses, who may also be first-time readers of philosophy.

Routledge
July 2022 : 170pp
Pb: 978-1-138-95214-0 : **£45.99**
Hb: 978-1-138-95213-3 : **£155**
eBook: 978-1-315-66776-8

* For full contents and more information, visit: www.routledge.com/9781138952140

Transformative Moments in Qualitative Research

Method, Theory, and Reflection



Anna Cohen-Miller

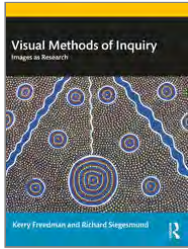
This groundbreaking book, eloquently fuses powerful stories of research with methodological insight and theory. Each chapter offers a clear, practical, and engaging exploration of qualitative inquiry, emphasizing the power of research to foster equity, inclusion, and justice-centered practice (e.g., social justice, economic justice, environmental/ecological justice). This book is an invaluable resource for graduate students, practitioners, and researchers to enhance their research and praxis. It will appeal to audiences across disciplinary backgrounds including social sciences, educational sciences, humanities, and STEM and health fields.

Routledge
December 2023 : 314pp
Pb: 978-1-032-38170-1 : **£41.99**
Hb: 978-1-032-38168-8 : **£145**
eBook: 978-1-003-34381-3

* For full contents and more information, visit: www.routledge.com/9781032381701

Visual Methods of Inquiry

Images as Research



Kerry Freedman , Richard Siegesmund

Visual Methods of Inquiry: Images as Research presents qualitative researchers in the social sciences with the benefits, applications, and forms of visual research methods. It includes a wide variety of images to illustrate the many uses of visual methods for social research. Students of social science and the visual arts will find this book useful in expanding and improving their methods of inquiry. Artists and researchers already familiar with visual methods will find that this book clarifies the ways the visual works in various research contexts and provides helpful language to describe and explain those methods.

Routledge

October 2023 : 238pp

Pb: 978-0-367-25048-5 : **£37.99**

Hb: 978-0-367-25049-2 : **£145**

eBook: 978-0-429-28572-1

* For full contents and more information, visit: www.routledge.com/9780367250485

2ND EDITION

Design Methods and Practices for Research of Project Management



Edited by **Beverly Pasian, Rodney Turner**

Design Methods and Practices for Research of Project Management is the most comprehensive guide on how to do research of and in project management. This second edition of the authoritative reference book offers a substantial update on the first edition with over 60% new content and so provides both practitioner and student researchers with a fully up-to-date and complete guide to research practice on project management.

Routledge
May 2024 : 368pp
Pb: 978-1-032-12387-5 : **£38.99**
Hb: 978-1-032-74496-4 : **£145**
eBook: 978-1-003-46951-3

* For full contents and more information, visit: www.routledge.com/9781032123875

2ND EDITION

Management Research

Applying the Principles of Business Research Methods



Susan Rose, Nigel Spinks, Ana Isabel Canhoto

Management Research supports new researchers on every step of the research journey, from defining a project to communicating its findings, as well as balancing the technical aspects of research with the management of the project itself. Management Research provides essential reading for undergraduate and postgraduate students undertaking a dissertation, thesis or research project, as well as professionals currently practicing in the field.

Routledge
December 2023 : 482pp
Pb: 978-1-032-46295-0 : **£57.99**
Hb: 978-1-032-46296-7 : **£190**
eBook: 978-1-003-38100-6

* For full contents and more information, visit: www.routledge.com/9781032462950

3RD EDITION

Planning Research in Hospitality and Tourism



Levent Altinay Oxford Brookes University, UK,
Alexandros Paraskevas, Faizan Ali

Planning Research in Hospitality and Tourism, 3rd Edition is an accessible, concise and practical guide to planning, conducting and analysing research in tourism and hospitality. Enriched with insightful case studies throughout, this volume is essential reading for all tourism and hospitality researchers.

Routledge
June 2024 : 372pp
Pb: 978-1-032-52258-6 : **£51.99**
Hb: 978-1-032-52257-9 : **£155**
eBook: 978-1-003-40579-5

* For full contents and more information, visit: www.routledge.com/9781032522586

Research Methodologies for Business Management



Vanessa Ratten La Trobe University, Australia

Most existing research methodologies texts take a more general approach or are edited books of previously published articles or chapters written by different authors. This book, written by a business management scholar, covers the fundamentals of business management research and its methodologies in a seamless, unified manner. It builds upon the knowledge by examining both qualitative and quantitative research methodologies in the context of business management. It will help business management students and junior researchers quickly build an essential base of knowledge and gain a strategic advantage in publishing and reviewing business related research.

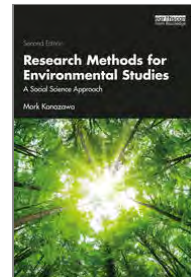
Routledge
February 2023 : 158pp
Pb: 978-1-032-32337-4 : **£46.99**
Hb: 978-1-032-32338-1 : **£140**
eBook: 978-1-003-31451-6

* For full contents and more information, visit: www.routledge.com/9781032323374

2ND EDITION

Research Methods for Environmental Studies

A Social Science Approach



Mark Kanazawa Carleton College, USA

The methodological needs of environmental studies are unique in the breadth of research questions that can be posed, calling for a textbook that covers a broad swath of approaches to conducting research with potentially many different kinds of evidence. Drawing on a variety of extended and updated examples to encourage problem-based learning and fully addressing the challenges associated with interdisciplinary investigation, this book will be an essential resource for students embarking on courses exploring research methods in environmental studies.

Routledge
July 2023 : 498pp
Pb: 978-1-032-19840-8 : **£40.99**
Hb: 978-1-032-19841-5 : **£155**
eBook: 978-1-003-26111-7

* For full contents and more information, visit: www.routledge.com/9781032198408

Researching and Analysing Business

Research Methods in Practice



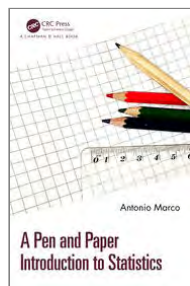
Edited by **Pantea Foroudi, Charles Dennis** Middlesex Business School, UK

Researching and Analysing Business provides an accessible and practical guide to various data collection and data analysis techniques within management. Unique in its practical approach, this book is required and recommended reading for advanced undergraduate and postgraduate students studying research methods.

Routledge
December 2023 : 456pp
Pb: 978-0-367-62065-3 : **£44.99**
Hb: 978-0-367-62064-6 : **£160**
eBook: 978-1-003-10777-4

* For full contents and more information, visit: www.routledge.com/9780367620653

A Pen and Paper Introduction to Statistics



Antonio Marco University of Essex, U.K.

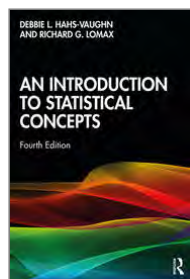
This book proposes to reverse the way statistics is taught, by starting with the introduction of linear models. The reader will have the opportunity to work through the examples and compute sums of squares by just drawing and counting, and finally evaluating whether observed differences are statistically significant by using the tables provided. Intended for students, professional life scientists, and those with little prior knowledge of statistics, this book is for all with simple and clear examples, computations and drawings helping the reader to, not only do, but also to understand statistics.

Chapman & Hall
December 2023 : 160pp
Pb: 978-1-032-50510-7 : **£35.99**
Hb: 978-1-032-50511-4 : **£105**
eBook: 978-1-003-39882-0

* For full contents and more information, visit: www.routledge.com/9781032505107

4TH EDITION

An Introduction to Statistical Concepts



Debbie L. Hahs-Vaughn University of Central Florida, USA, **Richard Lomax** The Ohio State University, USA

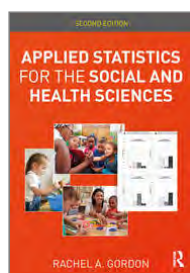
This comprehensive, flexible text is used in both one- and two-semester courses to review introductory through intermediate statistics. Instructors select the topics that are most appropriate for their course. Its conceptual approach helps students more easily understand the concepts and interpret SPSS and research results. Noted for its crystal clear explanations, key concepts are simply stated and occasionally reintroduced and related to one another for reinforcement. Numerous examples demonstrate their relevance. This edition features even more explanation to increase understanding of the concepts and has annotated script for using R.

Routledge
February 2020 : 1186pp
Hb: 978-1-138-65055-8 : **£130**
eBook: 978-1-315-62435-8

* For full contents and more information, visit: www.routledge.com/9781138650558

2ND EDITION

Applied Statistics for the Social and Health Sciences



Rachel A. Gordon Northern Illinois University, USA

Covering basic univariate and bivariate statistics and regression models for nominal, ordinal, and interval outcomes, this textbook provides graduate students in the social and health sciences with fundamental skills to estimate, interpret, and publish quantitative research using contemporary standards. Reflecting the growing importance of 'Big Data', this thoroughly revised and streamlined new edition, outlines changes in best practice in use of statistics in social and health sciences, draws upon new literatures and empirical examples, and highlights the importance of statistical programming, including coding, reproducibility, transparency, and open science.

Routledge
July 2023 : 800pp
Pb: 978-1-032-32344-2 : **£46.99**
Hb: 978-1-032-32343-5 : **£155**
eBook: 978-1-003-31453-0

* For full contents and more information, visit: www.routledge.com/9781032323442

9TH EDITION

Interpreting Basic Statistics

A Workbook Based on Excerpts from Journal Articles



Zealure C. Holcomb, **Keith S. Cox** University of North Carolina, USA

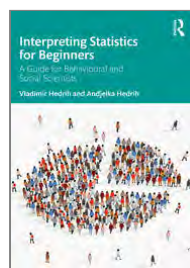
Interpreting Basic Statistics gives students valuable practice in interpreting statistical reporting as it actually appears in peer-reviewed journals. The questions in each exercise are divided into two parts: (1) Factual Questions and (2) Questions for Discussion. The factual questions require careful reading for details, while the discussion questions show that interpreting statistics is more than a mathematical exercise. Each exercise covers a limited number of topics, making it easy to coordinate the exercises with lectures or a traditional statistics textbook.

Routledge
September 2021 : 258pp
Pb: 978-0-367-56197-0 : **£66.99**
Hb: 978-0-367-56051-5 : **£200**
eBook: 978-1-003-09676-4

* For full contents and more information, visit: www.routledge.com/9780367561970

Interpreting Statistics for Beginners

A Guide for Behavioural and Social Scientists



Vladimir Hedrih, **Andjelka Hedrih**

Interpreting Statistics for Beginners teaches readers to correctly read and interpret results of basic statistical procedures as they are presented in scientific literature, and to understand what they can and cannot infer from such results. Written in an easy-to-read style and focusing on explaining concepts behind statistical calculations, the book is most helpful for readers with no previous training in statistics, and also those wishing to bridge the conceptual gap between doing the statistical calculations and interpreting the results.

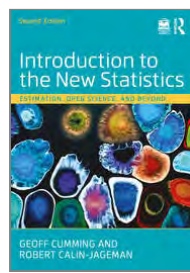
Routledge
February 2022 : 204pp
Pb: 978-0-367-61852-0 : **£39.99**
Hb: 978-0-367-62051-6 : **£155**
eBook: 978-1-003-10771-2

* For full contents and more information, visit: www.routledge.com/9780367618520

2ND EDITION

Introduction to the New Statistics

Estimation, Open Science, and Beyond



Geoff Cumming, **Robert Calin-Jageman**

This fully revised and updated second edition is an essential introduction to inferential statistics. It is the first introductory statistics text to use an estimation approach with meta-analysis ("the new statistics") from the start and also to explain the new and exciting Open Science practices, which encourage replication and enhance the trustworthiness of research. Designed for introduction to statistics, data analysis or quantitative methods courses in psychology, education and other social and health sciences, researchers interested in understanding Open Science and the new statistics will also appreciate this book.

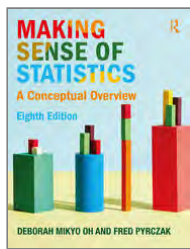
Routledge
March 2024 : 610pp
Pb: 978-0-367-53150-8 : **£72.99**
Hb: 978-0-367-53149-2 : **£225**
eBook: 978-1-032-68947-0

* For full contents and more information, visit: www.routledge.com/9780367531508

8TH EDITION

Making Sense of Statistics

A Conceptual Overview

**Deborah M. Oh , Fred Pyrczak**

Making Sense of Statistics, Eighth Edition, is the ideal introduction to the concepts of descriptive and inferential statistics for students undertaking their first research project. It presents each statistical concept in a series of short steps, then uses worked examples and exercises to enable students to apply their own learning. This conceptual book is useful for all study levels, from undergraduate to doctoral level across disciplines. Once students understand and feel comfortable with the statistics presented in this book, they should find it easy to master additional statistical concepts.

Routledge

June 2023 : 284pp

Pb: 978-1-032-28964-9 : **£52.99**Hb: 978-1-032-28962-5 : **£145**

eBook: 978-1-003-29935-6

* For full contents and more information, visit: www.routledge.com/9781032289649

4TH EDITION

Research Design and Statistical Analysis**Caren M. Rotello , Jerome L. Myers , Arnold D. Well , Robert F. Lorch, Jr.** University of Kentucky, Lexington, USA

This fully updated fourth edition of Research Design and Statistical Analysis provides comprehensive coverage of the design principles and statistical concepts necessary to make sense of real data. Incorporating the analyses of both experimental and observational data, and with coverage that is broad and deep enough to serve a two-semester sequence, this textbook is suitable for researchers, graduate students and advanced undergraduates in psychology, education, and other behavioral, social, and health sciences. The book is supported by a robust set of digital resources, including data files and exercises from the book in an Excel format, R scripts, and a solutions manual.

Routledge

January 2025 : 834pp

Pb: 978-1-032-89728-8 : **£80.99**Hb: 978-1-032-59210-7 : **£155**

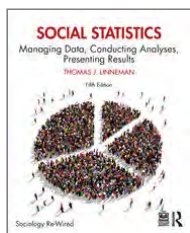
eBook: 978-1-003-45355-0

* For full contents and more information, visit: www.routledge.com/9781032897288

5TH EDITION

Social Statistics

Managing Data, Conducting Analyses, Presenting Results

**Thomas J. Linneman** The College of William and Mary, USA*Series: Sociology Re-Wired*

With a clear, engaging writing style and fascinating examples using a variety of real data, this text covers the contemporary statistical techniques that students will encounter in the world of social research. It covers these techniques at an introductory level and carefully guides students through increasingly complex examples without intimidating them.

Routledge

August 2025 : 668pp

Pb: 978-1-032-49035-9 : **£105**Hb: 978-1-032-49037-3 : **£155**

eBook: 978-1-003-39196-8

* For full contents and more information, visit: www.routledge.com/9781032490359

2ND EDITION

Statistical Methods

An Introduction to Basic Statistical Concepts and Analysis

**Cheryl Ann Willard**

Statistical Methods explains core statistical concepts and basic analysis techniques for the beginning undergraduate student in statistics or quantitative research methods. Each chapter covers a core concept before guiding students through a series of exercises designed to apply and demonstrate their knowledge. Expanded coverage of the second edition includes two new chapters on essential topics such as factorial analysis of variance, additional chapter exercises, and a full suite of instructor resources – powerpoint slides, instructor manual and test bank questions.

Routledge

March 2020 : 364pp

Pb: 978-0-367-20352-8 : **£60.99**Hb: 978-0-367-20351-1 : **£195**

eBook: 978-0-429-26103-9

* For full contents and more information, visit: www.routledge.com/9780367203528

4TH EDITION

Statistics Explained**Perry R. Hinton** Warwick University, UK

Statistics Explained is an accessible introduction to statistical concepts and ideas for undergraduate and postgraduate students new to the field. It makes few assumptions about the reader's statistical knowledge, carefully explaining each step of the analysis and the logic behind it. This new edition will include instructions and tips on how to present data and findings from SPSS output files, updated and more extensive case studies, and a section on alternative statistical software like R.

Routledge

October 2024 : 356pp

Pb: 978-0-367-36635-3 : **£39.99**Hb: 978-0-367-36638-4 : **£145**

eBook: 978-0-429-35326-0

* For full contents and more information, visit: www.routledge.com/9780367366353

2ND EDITION

Statistics for the Behavioural Sciences

An Introduction to Frequentist and Bayesian Approaches

**Riccardo Russo**

This accessible textbook is for those without a mathematical background (just some notions of basic algebra are sufficient) and provides a comprehensive introduction to all topics covered in introductory behavioural science statistics courses. This timely and highly readable text will be invaluable to undergraduate students of psychology and research methods courses in related disciplines, as well as anyone with an interest in understanding and applying the basic concepts and inferential techniques associated with statistics in the behavioural sciences.

Routledge

November 2020 : 330pp

Pb: 978-1-138-71150-1 : **£39.99**Hb: 978-1-138-71148-8 : **£155**

eBook: 978-1-315-20041-5

* For full contents and more information, visit: www.routledge.com/9781138711501

5TH EDITION

Statistics in Plain English



Timothy C. Urdan Santa Clara University, USA

Statistics in Plain English is a straightforward, conversational introduction to statistics that delivers exactly what its title promises. Each chapter begins with a brief overview of a statistic that describes what the statistic does and when to use it, followed by a detailed step-by-step explanation of how the statistic works and exactly what information it provides. Chapters also include an example of the statistic (or statistics) in use in real-world research, "Worked Examples," "Writing It Up" sections that demonstrate how to write about each statistic, "Wrapping Up and Looking Forward" sections, and practice work problems.

Routledge

March 2022 : 322pp

Pb: 978-0-367-34283-8 : **£37.99**

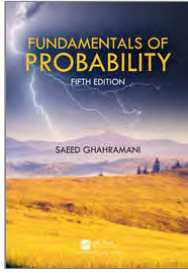
Hb: 978-0-367-34282-1 : **£195**

eBook: 978-1-032-22944-7 : **£33.99**

* For full contents and more information, visit: www.routledge.com/9780367342838

5TH EDITION

Fundamentals of Probability



Saeed Ghahramani Western New England University,
Springfield, Massachusetts, USA

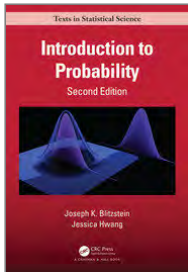
This one- or two-term calculus-based basic probability text is written for majors in mathematics, physical sciences, engineering, statistics, actuarial science, business and finance, operations research, and computer science. It presents probability in a natural way: through interesting and instructive examples and exercises that motivate the theory, definitions, theorems, and methodology. This book is mathematically rigorous and, at the same time, closely matches the historical development of probability. Whenever appropriate, historical remarks are included, and the 2096 examples and exercises have been designed to arouse curiosity and encourage students to delve into the theory.

Chapman & Hall
May 2024 : 700pp
Hb: 978-1-032-36608-1 : **£130**
IEPB: 978-1-032-80353-1 : **£49.99**
eBook: 978-1-003-33289-3

* For full contents and more information, visit: www.routledge.com/9781032366081

2ND EDITION

Introduction to Probability, Second Edition



Joseph K. Blitzstein Harvard University, Cambridge,
Massachusetts, USA, **Jessica Hwang** Stanford University,
California, USA

Series: Chapman & Hall/CRC Texts in Statistical Science

Undergraduate probability book that assumes one-semester of calculus. One key is the emphasis on "stories" for the probability distributions (which I mean in both an intuitive and technical sense): there are a dozen or so key distributions (Normal, Binomial, Poisson, etc.) that are incredibly widely-used in statistics, but a lot of books just write down formulas for them without explaining clearly why these particular distributions are so important, or how they are all connected. Each of these distributions has a "story" (a natural application where it arises), and thinking about stories makes the distributions easier to remember, understand, and work with.

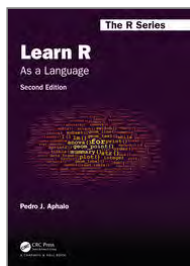
Chapman & Hall
February 2019 : 634pp
Hb: 978-1-138-36991-7 : **£76.99**
eBook: 978-0-429-42835-7

* For full contents and more information, visit: www.routledge.com/9781138369917

2ND EDITION

Learn R

As a Language



Pedro J. Aphalo University of Helsinki, Faculty of Biological and Environmental Sciences

Series: Chapman & Hall/CRC The R Series

Learning a computer language like R can be either frustrating, fun, or boring. Having fun requires challenges that wake up the learner's curiosity but also provide an emotional reward on overcoming them. This is the second edition of a book designed so that it includes smaller and bigger challenges, in what I call playgrounds, in the hope that all readers will enjoy their path to R fluency.

Chapman & Hall
April 2024 : 466pp
Pb: 978-1-032-51699-8 : **£67.99**
Hb: 978-1-032-51843-5 : **£175**
eBook: 978-1-003-40418-7

* For full contents and more information, visit: www.routledge.com/9781032516998

2ND EDITION

R Data Analysis without Programming

Explanation and Interpretation



David W. Gerbing Portland State University, USA

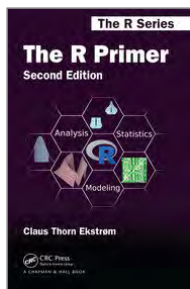
The new edition of this innovative book, prepares the readers to quickly analyse data and interpret statistical results using R. Professor Gerbing has developed lessR, which is a ground-breaking method in alleviating the challenges of R programming. The lessR extends R, removing the need for programming. This edition expands upon the first edition's introduction to R through lessR which enables the readers to learn how to organize data for analysis, read the data into R, and generate output without performing numerous functions and programming exercises first.

Routledge
January 2023 : 378pp
Pb: 978-1-032-24403-7 : **£55.99**
Hb: 978-1-032-24402-0 : **£140**
eBook: 978-1-003-27841-2

* For full contents and more information, visit: www.routledge.com/9781032244037

2ND EDITION

R Primer



Claus Thorn Ekström University of Copenhagen, Denmark

Series: Chapman & Hall/CRC The R Series

Newcomers to R are often intimidated by the command-line interface, the vast number of functions and packages, or the processes of importing data and performing a simple statistical analysis. The R Primer provides a collection of concise examples and solutions to R problems frequently encountered by new users of this statistical software. This new edition adds coverage of R Studio and reproducible research.

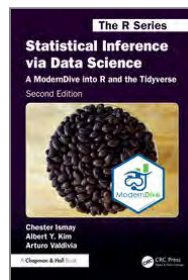
Chapman & Hall
March 2017 : 426pp
Pb: 978-1-138-63197-7 : **£59.99**
Hb: 978-1-498-77255-6 : **£125**
eBook: 978-1-315-15441-1

* For full contents and more information, visit: www.routledge.com/9781138631977

2ND EDITION

Statistical Inference via Data Science

A ModernDive into R and the Tidyverse



Chester Ismay DataCamp, **Albert Y. Kim**, **Arturo Valdivia**

Series: Chapman & Hall/CRC The R Series

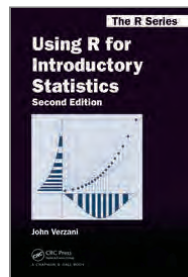
Offers a comprehensive guide to learning statistical inference with data science tools widely used in industry, academia, and government. Ideal for those new to statistics or looking to deepen their knowledge, this edition provides a clear entry point into data science and modern statistical methods.

Chapman & Hall
May 2025 : 490pp
Pb: 978-1-032-70837-9 : **£68.99**
Hb: 978-1-032-72451-5 : **£170**
eBook: 978-1-032-72454-6

* For full contents and more information, visit: www.routledge.com/9781032708379

2ND EDITION

Using R for Introductory Statistics



John Verzani CUNY/College of Staten Island, New York, USA

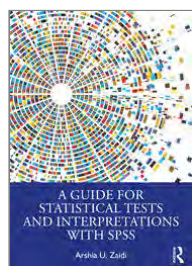
Series: Chapman & Hall/CRC The R Series

The second edition of a bestselling textbook, Using R for Introductory Statistics guides students through the basics of R, helping them overcome the sometimes steep learning curve. The author does this by breaking the material down into small, task-oriented steps. The second edition maintains the features that made the first edition so popular, while updating data, examples, and changes to R in line with the current version.

Chapman & Hall
June 2014 : 518pp
Hb: 978-1-466-59073-1 : **£67.99**
eBook: 978-1-315-37308-9

* For full contents and more information, visit: www.routledge.com/9781466590731

A Guide for Statistical Tests and Interpretations with SPSS



Arshia U. Zaidi

A Guide for Statistical Tests and Interpretations with SPSS is designed for students taking basic and advanced courses in statistics, taking an integrative and practical approach to learning statistics. It guides students through navigating SPSS outputs and writing quantitatively, dealing with technical and substantive interpretations without resorting to complex mathematical formulae. With SPSS screenshots and step-by-step advice, this book will be useful for all undergraduate and graduate students in the social sciences and humanities, as a supplemental textbook to provide practical guidance on moving through all steps of statistical testing and analysis.

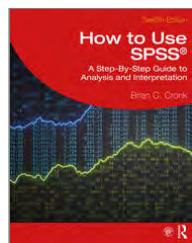
Routledge
October 2024 : 244pp
Pb: 978-1-032-10210-8 : **£48.99**
Hb: 978-1-032-10520-8 : **£140**
eBook: 978-1-003-21569-1

* For full contents and more information, visit: www.routledge.com/9781032102108

12TH EDITION

How to Use SPSS®

A Step-By-Step Guide to Analysis and Interpretation



Brian C. Cronk

This book is designed with the novice computer user in mind and for people who have no previous experience using SPSS. Each chapter is divided into short sections that describe the statistic being used, important underlying assumptions, and how to interpret the results and express them in a research report. The book begins with the basics, such as starting SPSS, defining variables, and entering and saving data. It covers all major statistical techniques typically taught in beginning statistics classes, such as descriptive statistics, graphing data, prediction and association, parametric inferential statistics, nonparametric inferential statistics and statistics for test construction.

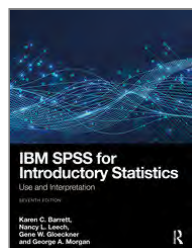
Routledge
January 2024 : 252pp
Pb: 978-1-032-58235-1 : **£65.99**
Hb: 978-1-032-58519-2 : **£155**
eBook: 978-1-003-45046-7

* For full contents and more information, visit: www.routledge.com/9781032582351

7TH EDITION

IBM SPSS for Introductory Statistics

Use and Interpretation



Karen C. Barrett Colorado State University, USA, **Nancy L. Leech** University of Colorado at Denver, USA, **Gene W. Gloeckner** Colorado State University, USA, **George A. Morgan** Colorado State University, USA

IBM SPSS for Introductory Statistics is designed to help students learn how to analyze and interpret research. In easy-to-understand language, the authors show readers how to choose the appropriate statistic based on the design, and to interpret outputs appropriately. This volume is an invaluable supplemental (or lab text) book for students. In addition, this book and its companion, IBM SPSS for Intermediate Statistics, are useful as guides/reminders to faculty and professionals regarding the specific steps to take to use SPSS and/or how to use and interpret parts of SPSS with which they are unfamiliar.

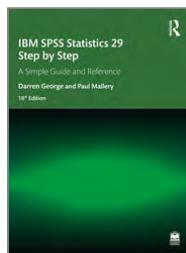
Routledge
September 2025 : 258pp
Pb: 978-1-032-41030-2 : **£47.99**
Hb: 978-1-032-41031-9 : **£155**
eBook: 978-1-003-35590-8

* For full contents and more information, visit: www.routledge.com/9781032410302

18TH EDITION

IBM SPSS Statistics 29 Step by Step

A Simple Guide and Reference



Darren George, Paul Mallery

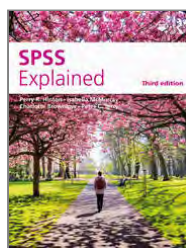
IBM SPSS Statistics 29 Step by Step: A Simple Guide and Reference, eighteenth edition, takes a straightforward, step-by-step approach that makes SPSS software clear to beginners and experienced researchers alike. Accompanied by updated online instructor's materials and website data files, this is an essential resource for instructors and students needing a guide to using SPSS in their work, across the social sciences, behavioural sciences, education, and beyond.

Routledge
March 2024 : 440pp
Pb: 978-1-032-62193-7 : **£75.99**
Hb: 978-1-032-62212-5 : **£235**
eBook: 978-1-032-62215-6

* For full contents and more information, visit: www.routledge.com/9781032621937

3RD EDITION

SPSS Explained



Perry R. Hinton Warwick University, UK, **Isabella McMurray** University of Bedfordshire, UK, **Charlotte Brownlow**, **Peter C. Terry**

SPSS Explained provides the student with all that they need to undertake statistical analysis using SPSS. It combines a step-by-step approach to each procedure with easy-to-follow screenshots at each stage of the process. The authors have many years of experience in teaching SPSS to students from a wide range of disciplines. Their understanding of SPSS users' concerns, as well as a knowledge of the type of questions students ask, form the foundation of this book.

Routledge
September 2023 : 386pp
Pb: 978-0-367-36699-5 : **£52.99**
Hb: 978-0-367-36698-8 : **£145**
eBook: 978-0-429-35086-3

* For full contents and more information, visit: www.routledge.com/9780367366995

Geocomputation with Python



Michael Dorman , Anita Graser , Jakub Nowosad , Robin Lovelace University of Leeds, UK

Series: Chapman & Hall/CRC The Python Series

Geocomputation with Python is a comprehensive resource for working with geographic data with the most popular programming language in the world. The book gives an overview of Python's capabilities for spatial data analysis, as well as dozens of worked-through examples covering the entire range of standard GIS operations. Another unique feature is that this book is part of a wider community.

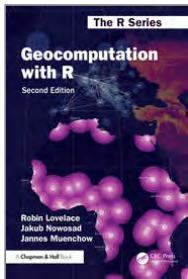
Geocomputation with Python is a sister project of Geocomputation with R (Lovelace, Nowosad, and Muenchow 2019), a book on geographic data analysis, visualization, and modeling using the R programming language that has numerous contributors and an active community.

Chapman & Hall
February 2025 : 344pp
Pb: 978-1-032-46065-9 : **£58.99**
Hb: 978-1-032-45891-5 : **£160**
eBook: 978-1-003-37991-1

* For **full contents** and more information, visit: www.routledge.com/9781032460659

2ND EDITION

Geocomputation with R



Robin Lovelace University of Leeds, UK, **Jakub Nowosad , Jannes Muenchow** Friedrich Schiller University, Jena, Germany

Series: Chapman & Hall/CRC The R Series

Geocomputation with R is for people who want to analyze, visualize, and model geographic data with open source software. The book provides a foundation for learning how to solve a wide range of geographic data analysis problems in a reproducible, and therefore scientifically sound and scalable way. The second edition features numerous updates, including the adoption of the high-performance terra package for all raster data processing, detailed coverage of the spherical geometry engine s2, updated information on coordinate reference systems and new content on openEO, STAC, COG, and gdalraster. The book equips you with the knowledge and skills to tackle a wide range of issues.

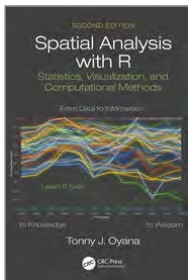
Chapman & Hall
May 2025 : 420pp
Pb: 978-1-032-24888-2 : **£58.99**
Hb: 978-1-032-22979-9 : **£160**
eBook: 978-1-003-28056-9

* For **full contents** and more information, visit: www.routledge.com/9781032248882

2ND EDITION

Spatial Analysis with R

Statistics, Visualization, and Computational Methods



Tonny J. Oyana

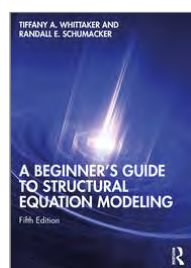
The implementation of new tools and methods for spatial analysis using R, the use and growth of artificial intelligence, machine learning and deep learning algorithms with a spatial perspective, and the interdisciplinary use of spatial analysis are all new topics in this second edition. The book provides a balance between concepts and practicum of spatial statistics with a comprehensive coverage of the most important approaches to understand spatial data, analyze spatial relationships and spatial patterns, and predict spatial processes. It offers new datasets, insights, and excellent illustrations to senior undergraduate and first year graduate students in geography and geosciences.

CRC Press
September 2023 : 354pp
Pb: 978-0-367-53238-3 : **£48.99**
Hb: 978-0-367-86085-1 : **£125**
eBook: 978-1-003-02164-3

* For **full contents** and more information, visit: www.routledge.com/9780367532383

5TH EDITION

A Beginner's Guide to Structural Equation Modeling



Randall E. Schumacker , Tiffany A. Whittaker

A Beginner's Guide to Structural Equation Modeling, fifth edition, has been redesigned with consideration of a true beginner in structural equation modeling (SEM) in mind. The book covers introductory through intermediate topics in SEM in more detail than in any previous edition. This book is intended for true beginners in structural equation modeling and is designed for introductory graduate courses in structural equation modeling taught in psychology, education, business, and the social and healthcare sciences. This book also appeals to researchers and faculty in various disciplines. Prerequisites include correlation and regression methods.

Routledge

May 2022 : 418pp

Pb: 978-0-367-47796-7 : **£76.99**

Hb: 978-0-367-49015-7 : **£155**

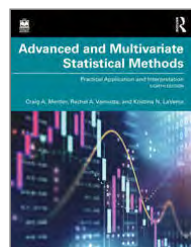
eBook: 978-1-003-04401-7

* For full contents and more information, visit: www.routledge.com/9780367477967

8TH EDITION

Advanced and Multivariate Statistical Methods

Practical Application and Interpretation



Craig A. Mertler Arizona State University, USA, **Rachel A. Vannatta** , **Kristina N. LaVenía** Bowling Green State University

Advanced and Multivariate Statistical Methods, Eighth Edition offers conceptual and practical insights into multivariate statistical techniques, designed for students without requiring deep technical or mathematical expertise. This updated text facilitates conceptual understanding of multivariate statistical methods by limiting the technical nature of the discussion of those concepts and focusing on their practical applications. This book is tailored for students taking a multivariate statistics course in graduate programs across a range of fields, including psychology, education, sociology, criminal justice, social work, mass communication, and nursing.

Routledge

September 2025 : 352pp

Pb: 978-1-032-89050-0 : **£145**

Hb: 978-1-032-91296-7 : **£155**

eBook: 978-1-003-56243-6

* For full contents and more information, visit: www.routledge.com/9781032890500

Data Analytics for the Social Sciences

Applications in R



G. David Garson

This book presents a complete exploration of statistical data analysis in R for a wide variety of social science disciplines and quantitative methods courses. Covering all the bases including multilevel modeling and ANOVA / ANCOVA, the book also goes further by looking at topics such as: neural networks to implement deep learning, thus solving complex problems other algorithms cannot; how to deal with missing values in real world data; and the use of text analytics. R code input and output is included. Suitable for all advanced level undergraduate and postgraduate students learning statistical data analysis.

Routledge

November 2021 : 704pp

Pb: 978-0-367-62427-9 : **£94.99**

Hb: 978-0-367-62429-3 : **£265**

eBook: 978-1-003-10939-6

* For full contents and more information, visit: www.routledge.com/9780367624279

Doing Statistical Analysis

A Student's Guide to Quantitative Research



Christer Thrane

Doing Statistical Analysis looks at three kinds of statistical research questions – descriptive, associational and inferential – and shows students how to conduct statistical analyses and interpret the results. Keeping equations to a minimum, it uses a conversational style and relatable examples such as football, covid-19 and tourism, to aid understanding. Each chapter contains practice exercises, and a section showing students how to reproduce the statistical results in the book using Stata and SPSS. Its accessible approach means this is the ideal textbook for undergraduate students across the social and behavioural sciences needing to build their confidence with statistical analysis.

Routledge

July 2022 : 266pp

Pb: 978-1-032-17132-6 : **£55.99**

Hb: 978-1-032-18030-4 : **£155**

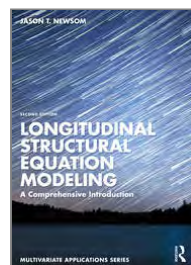
eBook: 978-1-003-25255-9

* For full contents and more information, visit: www.routledge.com/9781032171326

2ND EDITION

Longitudinal Structural Equation Modeling

A Comprehensive Introduction



Jason T. Newsom Portland State University, USA

Series: Multivariate Applications Series

Longitudinal Structural Equation Modeling, Second Edition provides an in-depth, comprehensive overview of structural equation modeling (SEM) strategies for longitudinal data to help readers see which modeling options are available for which hypotheses. Ideal for graduate courses on longitudinal (data) analysis, advanced SEM, longitudinal SEM, and/or advanced data (quantitative) analysis taught in the behavioral, social, and health sciences, Longitudinal Structural Equation Modeling, Second Edition, also appeals to researchers in these fields, and the first edition has been popular as a standard reference for this type of analysis.

Routledge

October 2023 : 522pp

Pb: 978-1-032-20286-0 : **£78.99**

Hb: 978-1-032-20283-9 : **£155**

eBook: 978-1-003-26303-6

* For full contents and more information, visit: www.routledge.com/9781032202860

3RD EDITION

Multilevel and Longitudinal Modeling with IBM SPSS



Ronald H. Heck University of Hawaii, Manoa, **Scott L. Thomas** University of Vermont, USA, **Lynn N. Tabata** University of Hawaii, Manoa

Series: Quantitative Methodology Series

This text demonstrates how to use the multilevel- and longitudinal-modeling techniques available in IBM SPSS (Version 26). Adopting a workbook format, the text walks readers through setting up, running, and interpreting a variety of different types of multilevel and longitudinal models using the linear mixed-effects model (MIXED and GENLIMIXED) platforms in SPSS. This text is an essential resource for graduate students taking courses on multilevel, longitudinal, and latent variable modeling, multivariate statistics, or advanced quantitative techniques.

Routledge

April 2022 : 494pp

Pb: 978-0-367-42461-9 : **£52.99**

Hb: 978-0-367-42460-2 : **£185**

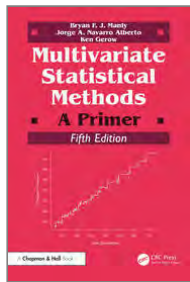
eBook: 978-0-367-82427-3

* For full contents and more information, visit: www.routledge.com/9780367424619

5TH EDITION

Multivariate Statistical Methods

A Primer



Bryan F. J. Manly University of Otago, Dunedin, New Zealand, **Jorge A. Navarro Alberto**, **Ken Gerow**

Great starting point for readers looking to become proficient in multivariate statistical methods, but who might not be deeply versed in the language of mathematics. In this edition, we provide readers with conceptual introductions to methods, practical suggestions, new references, and a more extensive collection of R functions and code that will help them to deepen their toolkit of multivariate statistical methods.

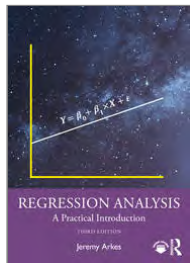
Chapman & Hall
October 2024 : 294pp
Pb: 978-1-032-59197-1 : **£55.99**
Hb: 978-1-032-59200-8 : **£160**
eBook: 978-1-003-45348-2

* For full contents and more information, visit: www.routledge.com/9781032591971

3RD EDITION

Regression Analysis

A Practical Introduction



Jeremy Arkes

This thoroughly practical and engaging textbook conveys the skills needed to responsibly develop, conduct, scrutinize, and interpret statistical analyses without requiring high-level math. This third edition features coverage of the Generalized AutoRegressive Conditional Heteroskedasticity (GARCH) model, Time Series Cross Section models and Multi-level (Hierarchical) models, and has been updated throughout to include more examples. It is ideal for undergraduate and postgraduate students learning quantitative methods in the social sciences, business, medicine, and data analytics. It will also appeal to researchers and academics looking to better understand regressions.

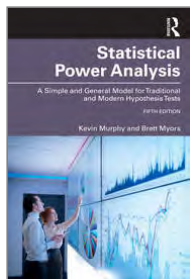
Routledge
September 2025 : 524pp
Pb: 978-1-041-00259-8 : **£41.99**
Hb: 978-1-041-00260-4 : **£130**
eBook: 978-1-003-60894-3

* For full contents and more information, visit: www.routledge.com/9781041002598

5TH EDITION

Statistical Power Analysis

A Simple and General Model for Traditional and Modern Hypothesis Tests, Fifth Edition



Brett Myers Griffith University, Australia, **Kevin R. Murphy** University of Limerick, Ireland

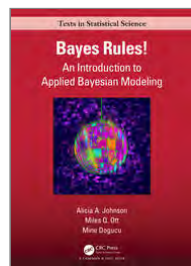
Statistical Power Analysis explains the key concepts in statistical power analysis and illustrates their application in both tests of traditional null hypotheses. It provides readers with the tools to understand and perform power analyses for virtually all the statistical methods used in the social and behavioral sciences. This edition includes new material and new power software. The programs used for power analysis in this book have been re-written in R, a language that is widely used and freely available. Statistical Power Analysis helps readers design studies, diagnose existing studies, and understand why hypothesis tests come out the way they do.

Routledge
March 2023 : 224pp
Pb: 978-1-032-28300-5 : **£57.99**
Hb: 978-1-032-28301-2 : **£140**
eBook: 978-1-003-29622-5

* For full contents and more information, visit: www.routledge.com/9781032283005

Bayes Rules!

An Introduction to Applied Bayesian Modeling



Alicia A. Johnson, **Miles Q. Ott** Smith College,
Northampton, MA 01063, **Mine Dogucu** Denison
university, OH, USA

Series: Chapman & Hall/CRC Texts in Statistical Science

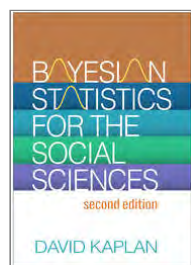
An engaging, sophisticated, and fun introduction to the field of Bayesian Statistics, *Bayes Rules! An Introduction to Bayesian Modeling with R* brings the power of modern Bayesian thinking, modeling, and computing to a broad audience. In particular, it is an ideal resource for advanced undergraduate Statistics students and practitioners with comparable experience. *Bayes Rules!* empowers readers to weave Bayesian approaches into their everyday practice.

Chapman & Hall
March 2022 : 544pp
Pb: 978-0-367-25539-8 : **£69.99**
Hb: 978-1-032-19159-1 : **£195**
eBook: 978-0-429-28834-0

* For full contents and more information, visit: www.routledge.com/9780367255398

2ND EDITION

Bayesian Statistics for the Social Sciences, Second Edition



David Kaplan University of Wisconsin–Madison, United States

This book equips social science researchers to apply the latest Bayesian methodologies to their data analysis problems. The second edition includes new chapters on model uncertainty, Bayesian variable selection and sparsity, and Bayesian workflow for statistical modeling, and emphasizes use of the RStan software package. Topics include frequentist and epistemic probability, prior distributions, Hamiltonian Monte Carlo, Bayesian linear regression and generalized linear models, model evaluation and comparison, multilevel modeling, missing data, and more. The book includes worked-through examples with annotated RStan code, and features a helpful companion website.

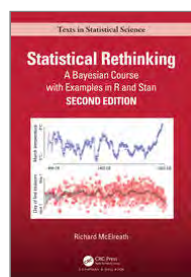
Guilford Press
December 2023 : 250pp
Hb: 978-1-462-55354-9 : **£62.99**

* For full contents and more information, visit: www.routledge.com/9781462553549

2ND EDITION

Statistical Rethinking

A Bayesian Course with Examples in R and STAN



Richard McElreath Max Planck Institute for Evolutionary Anthropology, Leipzig, Germany

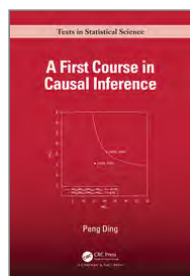
Series: Chapman & Hall/CRC Texts in Statistical Science

The very popular *Statistical Rethinking: A Bayesian Course with Examples in R and Stan*, Second Edition builds readers' knowledge of and confidence in statistical modeling. Reflecting the need for even minor programming in today's model-based statistics, the book pushes readers to perform step-by-step calculations that are usually automated. This unique computational approach ensures that readers understand enough of the details to make reasonable choices and interpretations in their own modeling work.

Chapman & Hall
March 2020 : 612pp
Hb: 978-0-367-13991-9 : **£86.99**
eBook: 978-0-429-02960-8

* For full contents and more information, visit: www.routledge.com/9780367139919

A First Course in Causal Inference



Peng Ding University of California Berkeley, U.S.A

Series: Chapman & Hall/CRC Texts in Statistical Science

This textbook, based on the author's course on causal inference at UC Berkeley taught over the past seven years, only requires basic knowledge of probability theory, statistical inference, and linear and logistic regressions. It assumes minimal knowledge of causal inference, and reviews basic probability and statistics in the appendix. It covers causal inference from a statistical perspective and includes examples and applications from biostatistics and econometrics. This book is suitable for an advanced undergraduate or graduate-level course on causal inference, or postgraduate and PhD-level course in statistics and biostatistics departments.

Chapman & Hall
July 2024 : 448pp
Hb: 978-1-032-75862-6 : **£68.99**
eBook: 978-1-003-48408-0

* For full contents and more information, visit: www.routledge.com/9781032758626

2ND EDITION

The Effect

An Introduction to Research Design and Causality



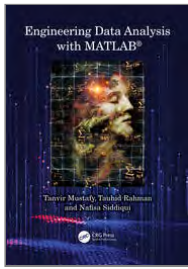
Nick Huntington-Klein

This book is about research design, specifically concerning research that uses non-experimental data to figure out whether one thing causes another. It introduces the concept of identification thoroughly and clearly and discusses it as a process of trying to isolate variation that has a causal interpretation. Concepts are demonstrated with a heavy emphasis on graphical intuition and the question of what we do to data. When we "add a control variable" what does that actually do? The second edition features a new chapter on partial identification, updated materials, methods, and writing throughout, and additional materials for help navigating the book or in using the book in teaching.

Chapman & Hall
July 2025 : 686pp
Pb: 978-1-032-58022-7 : **£41.99**
Hb: 978-1-032-58194-1 : **£130**
eBook: 978-1-003-44896-9

* For full contents and more information, visit: www.routledge.com/9781032580227

Engineering Data Analysis with MATLAB®



Tanvir Mustafy Military Inst. of Science and Tech, BD,
Tauhid Rahman Military Inst. of Science and Tech, BD,
Nafisa Siddiqui Military Inst. of Science and Tech, BD

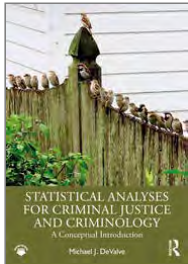
This book provides a concise overview of a variety of techniques for analyzing statistical, scientific, and financial data, using MATLAB® to integrate several approaches to data analysis and statistics. Chapters offer a broad review of computational data analysis, illustrated with many examples and applications. Each chapter combines theoretical concepts with practical MATLAB® applications and includes practice exercises, ensuring a comprehensive understanding of the material. With coverage of both basic and more complex ideas in applied statistics, the book has broad appeal for undergraduate students up to practicing engineers.

CRC Press
 December 2024 : 902pp
 Pb: 978-1-032-50771-2 : **£75.99**
 Hb: 978-1-032-50658-6 : **£155**
 eBook: 978-1-003-39958-2

* For full contents and more information, visit: www.routledge.com/9781032507712

Statistical Analyses for Criminal Justice and Criminology

A Conceptual Introduction



Michael J. DeValen

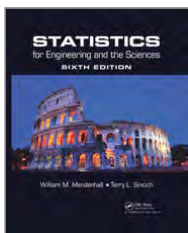
This book is a how-to guide for statistical analyses designed for undergraduates and others new to the subject. Written in an easy-going and clear style, the book uses policing data to illustrate concepts and includes a short narrative at the beginning of each chapter to engage readers. Easily identified Main Take-Aways and Key Terms features aid student understanding. Designed to combat the fear of mathematics and statistics often held by students in the social sciences, plain verbiage, multiple examples, and clear demonstrations combine to achieve the actualization and proper contextualized use of univariate and bivariate statistics.

Routledge
 June 2024 : 194pp
 Pb: 978-1-032-63854-6 : **£39.99**
 Hb: 978-1-032-63858-4 : **£155**
 eBook: 978-1-032-63859-1

* For full contents and more information, visit: www.routledge.com/9781032638546

6TH EDITION

Statistics for Engineering and the Sciences



William M. Mendenhall, **Terry L. Sincich**

Designed for a two-semester introductory course, this popular text continues to teach students the basic concepts of data description and statistical inference as well as the statistical methods necessary for real-world applications. Along with updated and reorganized material, this sixth edition includes many new and updated exercises based on contemporary engineering and scientific-related studies and real data. It also offers more statistical software printouts and corresponding instructions for use that reflect the latest versions of the SAS, SPSS, and MINITAB software.

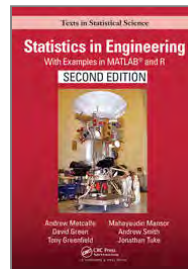
Chapman & Hall
 December 2015 : 1182pp
 Hb: 978-1-498-72885-0 : **£94.99**
 eBook: 978-0-429-07627-5

* For full contents and more information, visit: www.routledge.com/9781498728850

2ND EDITION

Statistics in Engineering

With Examples in MATLAB® and R, Second Edition



Andrew Metcalfe, **David Green**, **Tony Greenfield**,
Mayhayaudin Mansor, **Andrew Smith**, **Jonathan Tuke**

This is a textbook for an undergraduate course in statistics for engineers with a minimal calculus prerequisite. The second edition differs from existing books in three main aspects: it is the only introductory statistics textbook written for engineers that uses R throughout the text, there is an emphasis on statistical methods most relevant to engineers that are illustrated with practical applications, and there is an emphasis on random number generation and simulation, all very useful features in engineering.

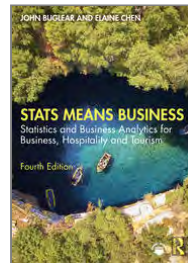
Chapman & Hall
 June 2020 : 810pp
 Pb: 978-0-367-57062-0 : **£51.99**
 Hb: 978-1-439-89547-4 : **£96.99**
 eBook: 978-1-315-11723-2

* For full contents and more information, visit: www.routledge.com/9780367570620

4TH EDITION

Stats Means Business

Statistics and Business Analytics for Business, Hospitality and Tourism



John Buglear, **Elaine Chen**

Stats Means Business is an introductory and comprehensive textbook written especially for Hospitality, Business and Tourism students who take statistics or quantitative methods modules. By minimising technical language, providing clear definitions of key terms and giving emphasis to interpretation rather than technique, this book caters to beginners in the subject. Stats Means Business is an ideal, accessible and practical introduction to statistics and quantitative research methods for Hospitality, Business and Tourism students.

Routledge
 April 2025 : 456pp
 Pb: 978-1-032-75021-7 : **£60.99**
 Hb: 978-1-032-75018-7 : **£155**
 eBook: 978-1-003-47202-5

* For full contents and more information, visit: www.routledge.com/9781032750217

A Tour of Data Science

Learn R and Python in Parallel



Nailong Zhang

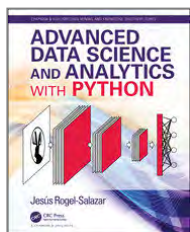
Series: Chapman & Hall/CRC Data Science Series

This book covers the fundamentals of data science, including programming, statistics, optimization, and machine learning in a single and short book. It does not cover everything, but instead, teaches the key concepts and topics. It also covers two of the most popular programming languages used in Data Science, R and Python, in one source.

Chapman & Hall
November 2020 : 216pp
Pb: 978-0-367-89586-0 : **£52.99**
Hb: 978-0-367-89706-2 : **£145**
eBook: 978-1-003-02064-6

* For full contents and more information, visit: www.routledge.com/9780367895860

Advanced Data Science and Analytics with Python



Jesús Rogel-Salazar Imperial College London, UK

Series: Chapman & Hall/CRC Data Mining and Knowledge Discovery Series

The book is intended for practitioners in data science and data analytics in both academic and business environments. It aims to present the reader with concepts in data science and analytics that were deemed to be more advanced or simply out of scope in the author's first book, and are used in data analytics using tools developed in Python such as SciKit Learn, Pandas, Numpy, etc. The use of Python is of particular benefit given its recent popularity in the data science community. The book is therefore a reference to be used by seasoned programmers and newcomers alike and the key benefit is the practical approach presented throughout the book.

Chapman & Hall
May 2020 : 424pp
Pb: 978-1-138-31506-8 : **£51.99**
Hb: 978-0-429-44661-0 : **£115**
eBook: 978-0-429-44664-1

* For full contents and more information, visit: www.routledge.com/9781138315068

2ND EDITION

Big Data and Social Science

Data Science Methods and Tools for Research and Practice



Edited by **Ian Foster** University of Chicago, Illinois, USA, **Rayid Ghani** University of Chicago, Illinois, USA, **Ron S. Jarmin**, **Frauke Kreuter** University of Mannheim, Germany; and Institute for Employment Research, Germany, **Julia Lane** New York University; American Institutes for Research, USA

Series: Chapman & Hall/CRC Statistics in the Social and Behavioral Sciences

This classroom-tested book fills a major gap in graduate- and professional-level data science and social science education. It can be used to train a new generation of social data scientists to tackle real-world problems and improve the skills and competencies of applied social scientists and public policy practitioners. It empowers you to use the massive and rapidly growing amounts of available data to interpret economic and social activities in a scientific and rigorous manner.

Chapman & Hall
November 2020 : 412pp
Pb: 978-0-367-56859-7 : **£60.99**
Hb: 978-0-367-34187-9 : **£155**
eBook: 978-0-429-32438-3

* For full contents and more information, visit: www.routledge.com/9780367568597

2ND EDITION

Data Science and Analytics with Python



Jesús Rogel-Salazar Imperial College London, UK

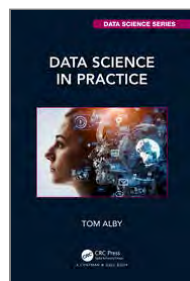
Series: Chapman & Hall/CRC Data Mining and Knowledge Discovery Series

Since the first edition, we have witnessed an unprecedented explosion in the interest and development within the fields of Artificial Intelligence and Machine Learning. This surge has led to the widespread adoption of the book, not just among business practitioners, but also by universities as a key textbook. Designed as a practical companion for data analysts and budding data scientists, this book assumes a working knowledge of programming and statistical modelling but aims to guide readers deeper into the wonders of data analytics and machine learning. Whether revisiting fundamental concepts or diving into new, advanced topics, this book offers something valuable for every reader.

Chapman & Hall
June 2025 : 514pp
Pb: 978-1-032-77249-3 : **£51.99**
Hb: 978-1-032-77252-3 : **£140**
eBook: 978-1-003-48206-2

* For full contents and more information, visit: www.routledge.com/9781032772493

Data Science in Practice



Tom Alby

Series: Chapman & Hall/CRC Data Science Series

Data Science in Practice is the ideal introduction to data science. With or without math skills: Here you get the all-round view that you need for your projects. This book describes how to properly question data, to unearth the treasure that data can be. As technology alone is not enough, this book also deals with problems in project implementation, illuminates various fields of application and addresses ethical aspects. Data Science in Practice includes many examples, notes on errors, decision-making aids and other practical tips, and is ideal as a complementary text for university students, or as a useful learning tool for those starting more data-related roles.

Chapman & Hall
September 2023 : 318pp
Pb: 978-1-032-50526-8 : **£61.99**
Hb: 978-1-032-50524-4 : **£160**
eBook: 978-1-003-42636-3

* For full contents and more information, visit: www.routledge.com/9781032505268

Data Science

A First Introduction



Tiffany Timbers University of British Columbia, **Trevor Campbell**, **Melissa Lee**

Series: Chapman & Hall/CRC Data Science Series

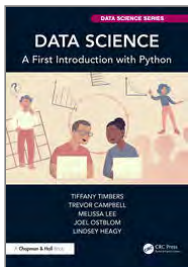
Data Science: A First Introduction focuses on using the R programming language in Jupyter notebooks to perform data manipulation and cleaning, create effective visualizations, and extract insights from data using classification, regression, clustering, and inference. The text emphasizes workflows that are clear, reproducible, and shareable, and includes coverage of the basics of version control. All source code is available online, demonstrating the use of good reproducible project workflows.

Chapman & Hall
July 2022 : 456pp
Pb: 978-0-367-52468-5 : **£55.99**
Hb: 978-0-367-53217-8 : **£140**
eBook: 978-1-003-08097-8

* For full contents and more information, visit: www.routledge.com/9780367524685

Data Science

A First Introduction with Python



Tiffany Timbers University of British Columbia, **Trevor Campbell**, **Melissa Lee** Assistant Professor, Uni of British Columbia, Canada, **Joel Ostblom**, **Lindsey Heagy** Professor, Uni of British Columbia, Canada

Series: Chapman & Hall/CRC Data Science Series

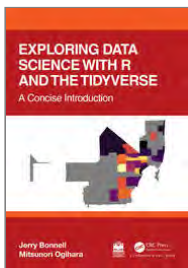
This book focuses on using the Python programming language in Jupyter notebooks to perform data manipulation and cleaning, create effective visualizations, and extract insights from data using classification, regression, clustering, and inference. The text emphasizes workflows that are clear, reproducible, and shareable, and includes coverage of the basics of version control. All source code is available online, demonstrating the use of good reproducible project workflows. The book is designed for learners from all disciplines with minimal prior knowledge of mathematics and programming. The authors have honed the material through years of experience teaching.

Chapman & Hall
August 2024 : 452pp
Pb: 978-1-032-57223-9 : **£61.99**
Hb: 978-1-032-57219-2 : **£160**
eBook: 978-1-003-43839-7

* For full contents and more information, visit: www.routledge.com/9781032572239

Exploring Data Science with R and the Tidyverse

A Concise Introduction



Jerry Bonnell, **Mitsunori Ogihara** University of Miami, Coral Gables, Florida, USA

This book introduces the reader to data science using R and the tidyverse. No prerequisite knowledge is needed in college-level programming or mathematics (e.g., calculus or statistics). The book is self-contained so readers can immediately begin building data science workflows without needing to reference extensive amounts of external resources for onboarding. The contents are targeted for undergraduate students but are equally applicable to students at the graduate level and beyond. The book develops concepts using many real-world examples to motivate the reader. An exercise set is made available and designed for compatibility with automated grading tools for instructor use.

Chapman & Hall
August 2023 : 492pp
Pb: 978-1-032-34170-5 : **£80.99**
Hb: 978-1-032-32950-5 : **£205**
eBook: 978-1-003-32084-5

* For full contents and more information, visit: www.routledge.com/9781032341705

Foundations of Data Science with Python



John M. Shea

Series: Chapman & Hall/CRC The Python Series

Foundations of Data Science with Python introduces readers to the fundamentals of data science, including data manipulation and visualization, probability, statistics, and dimensionality reduction. This book is targeted toward engineers and scientists, but it should be readily understandable to anyone who knows basic calculus and the essentials of computer programming. This book can be used as an undergraduate textbook for an Introduction to Data Science course or to provide a more contemporary approach in courses like Engineering Statistics. It is also intended to be accessible to practicing engineers and scientists.

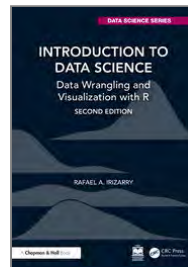
Chapman & Hall
February 2024 : 496pp
Pb: 978-1-032-35042-4 : **£77.99**
Hb: 978-1-032-34674-8 : **£200**
eBook: 978-1-003-32499-7

* For full contents and more information, visit: www.routledge.com/9781032350424

2ND EDITION

Introduction to Data Science

Data Wrangling and Visualization with R



Rafael A. Irizarry

Series: Chapman & Hall/CRC Data Science Series

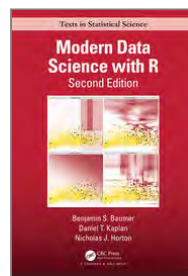
Thoroughly revised and updated, this is the first book of the second edition of Introduction to Data Science: Data Wrangling and Visualization with R. It introduces skills that can help you tackle real-world data analysis challenges. No previous knowledge of R is necessary, although some experience with programming may be helpful. If you read and understand all the chapters and complete all the exercises in this book, and understand statistical concepts, you will be well-positioned to perform basic data analysis tasks and you will be prepared to learn the more advanced concepts and skills needed to become an expert.

Chapman & Hall
August 2024 : 346pp
Hb: 978-1-032-11655-6 : **£62.99**
eBook: 978-1-003-22092-3

* For full contents and more information, visit: www.routledge.com/9781032116556

2ND EDITION

Modern Data Science with R



Benjamin S. Baumer Smith College, Northampton, MA, **Daniel T. Kaplan** Smith College, Northampton, MA, **Nicholas J. Horton** Amherst College, Amherst, MA

Series: Chapman & Hall/CRC Texts in Statistical Science

New data technologies and database systems facilitate scraping data and merging information from different sources and formats and restructuring data into a form suitable for analysis. State-of-the-art workflow and tools foster well-documented and reproducible analysis. Modern statistical methods allow the analyst to fit and assess models as well as to undertake supervised or unsupervised learning to extract information. Contemporary data science requires tight integration of these statistics, computing, data skills, mathematics, and communication. The text is intended for readers with some background in statistics and modest prior experience in scripting and programming.

Chapman & Hall
April 2021 : 650pp
Hb: 978-0-367-19149-8 : **£94.99**
eBook: 978-0-429-20071-7

* For full contents and more information, visit: www.routledge.com/9780367191498

Practitioner's Guide to Data Science



Hui Lin, **Ming Li**

Series: Chapman & Hall/CRC Data Science Series

This book aims to increase the visibility of data science in real-world, which differs from what you learn from a typical textbook. Many aspects of day-to-day data science work are almost absent from conventional statistics, machine learning, and data science curriculum. This book is for readers who want to explore possible career paths and eventually become data scientists. This book comprehensively introduces various data science fields, and programming skills in data science projects. Traditional data-related practitioners such as statisticians, business analysts, and data analysts will find this book helpful in expanding their skills for future data science careers.

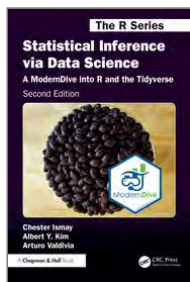
Chapman & Hall
May 2023 : 402pp
Pb: 978-0-815-35439-0 : **£57.99**
Hb: 978-0-815-35447-5 : **£155**
eBook: 978-1-351-13291-6

* For full contents and more information, visit: www.routledge.com/9780815354390

2ND EDITION

Statistical Inference via Data Science

A ModernDive into R and the Tidyverse



Chester Ismay DataCamp, **Albert Y. Kim**, **Arturo Valdivia**

Series: Chapman & Hall/CRC The R Series

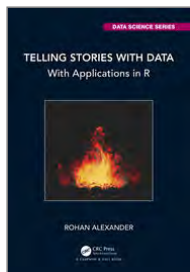
Offers a comprehensive guide to learning statistical inference with data science tools widely used in industry, academia, and government. Ideal for those new to statistics or looking to deepen their knowledge, this edition provides a clear entry point into data science and modern statistical methods.

Chapman & Hall
May 2025 : 490pp
Pb: 978-1-032-70837-9 : **£68.99**
Hb: 978-1-032-72451-5 : **£170**
eBook: 978-1-032-72454-6

* For full contents and more information, visit: www.routledge.com/9781032708379

Telling Stories with Data

With Applications in R



Rohan Alexander

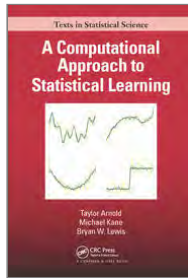
Series: Chapman & Hall/CRC Data Science Series

The book equips students with the end-to-end skills needed to do data science. That means gathering, cleaning, preparing, and sharing data, then using statistical models to analyse data, writing about the results of those models, drawing conclusions from them, and finally, using the cloud to put a model into production, all done in a reproducible way. This book will achieve the goals by working through extensive case studies in terms of gathering and preparing data, and integrating ethics throughout. It is specifically designed around teaching how to write about the data and models, so aspects such as writing are explicitly covered.

Chapman & Hall
July 2023 : 622pp
Hb: 978-1-032-13477-2 : **£83.99**
eBook: 978-1-003-22940-7

* For full contents and more information, visit: www.routledge.com/9781032134772

A Computational Approach to Statistical Learning



Taylor Arnold , Michael Kane , Bryan W. Lewis

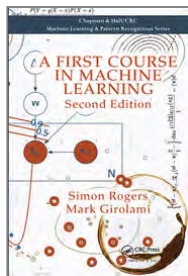
This book synthesizes those techniques from numerical analysis, algorithms, data structures, and optimization theory most commonly employed in statistics and machine learning. We provide concrete applications of these methods by giving complete reference implementations for a large set of the most commonly used statistical estimators. The goal is to provide a self-contained textbook explaining the inner algorithmic workings of statistical estimators.

Chapman & Hall
June 2020 : 374pp
Pb: 978-0-367-57061-3 : **£51.99**
Hb: 978-1-138-04637-5 : **£86.99**
eBook: 978-1-315-17140-1

* For full contents and more information, visit: www.routledge.com/9780367570613

2ND EDITION

A First Course in Machine Learning



Simon Rogers , Mark Girolami

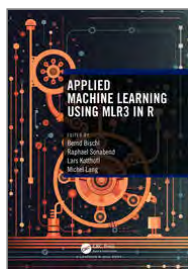
Series: Chapman & Hall/CRC Machine Learning & Pattern Recognition

The new edition of this popular, undergraduate textbook has been revised and updated to reflect current growth areas in Machine Learning. The new edition includes three new chapters with more detailed discussion of Markov Chain Monte Carlo techniques, Classification and Regression with Gaussian Processes, and Dirichlet Process models. Previous chapters have also been updated to reflect new developments in Machine Learning, and correct any previous errors in the text.

Chapman & Hall
June 2020 : 428pp
Pb: 978-0-367-57464-2 : **£45.99**
Hb: 978-1-498-73848-4 : **£72.99**
eBook: 978-1-315-38215-9

* For full contents and more information, visit: www.routledge.com/9780367574642

Applied Machine Learning Using mlr3 in R



Edited by **Bernd Bischl , Raphael Sonabend , Lars Kotthoff , Michel Lang**

mlr3 is an award-winning ecosystem of R packages that have been developed to enable state-of-the-art machine learning capabilities in R. This book gives an overview of flexible and robust machine learning methods, with an emphasis on how to implement them using mlr3 in R. It covers many key topics, including basic machine learning tasks, such as building and evaluating a predictive model; hyperparameter tuning of machine learning approaches to obtain peak performance; building machine learning pipelines that perform complex operations

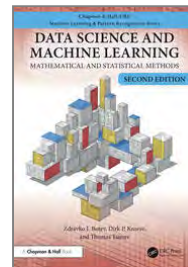
Chapman & Hall
January 2024 : 356pp
Pb: 978-1-032-50754-5 : **£67.99**
Hb: 978-1-032-51567-0 : **£175**
eBook: 978-1-003-40284-8

* For full contents and more information, visit: www.routledge.com/9781032507545

2ND EDITION

Data Science and Machine Learning

Mathematical and Statistical Methods, Second Edition



Zdravko Botev University of New South Wales, **Dirk P. Kroese** , **Thomas Taimre**

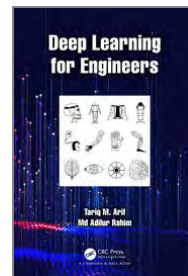
Series: Chapman & Hall/CRC Machine Learning & Pattern Recognition

The purpose of Data Science and Machine Learning: Mathematical and Statistical Methods is to provide an accessible, yet comprehensive textbook intended for students interested in gaining a better understanding of the mathematics and statistics that underpin the rich variety of ideas and machine learning algorithms in data science. This expanded second edition provides updates across key areas of statistical learning.

Chapman & Hall
November 2025 : 758pp
Hb: 978-1-032-48868-4 : **£78.99**
eBook: 978-1-003-39117-3

* For full contents and more information, visit: www.routledge.com/9781032488684

Deep Learning for Engineers



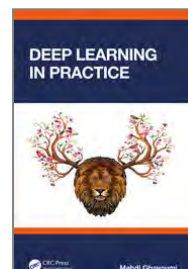
Tariq M. Arif Weber State University Ogden, UT, **Md Adilur Rahim** Louisiana State University Baton Rouge, LA

As a comprehensive guideline for applying deep learning models in practical settings, this book features an easy-to-understand coding structure using Python and PyTorch with an in-depth explanation of four typical deep learning case studies on image classification, object detection, semantic segmentation, and image captioning. Science and engineering students, academic researchers, and industry professionals will find the contents useful.

Chapman & Hall
February 2024 : 170pp
Pb: 978-1-032-51581-6 : **£52.99**
Hb: 978-1-032-50473-5 : **£94.99**
eBook: 978-1-003-40292-3

* For full contents and more information, visit: www.routledge.com/9781032515816

Deep Learning in Practice



Mehdi Ghayoumi University of San Diego

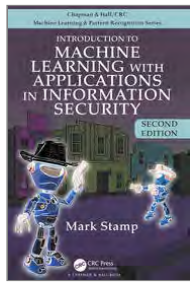
Deep Learning in Practice helps you learn how to develop and optimize a model for your projects using Deep Learning (DL) methods and architectures. This book is useful for undergraduate and graduate students, as well as practitioners in industry and academia. It will serve as a useful reference for learning deep learning fundamentals and implementing a deep learning model for any project, step by step.

Chapman & Hall
June 2025 : 218pp
Pb: 978-0-367-45658-0 : **£44.99**
Hb: 978-0-367-45862-1 : **£82.99**
eBook: 978-1-003-02581-8

* For full contents and more information, visit: www.routledge.com/9780367456580

2ND EDITION

Introduction to Machine Learning with Applications in Information Security



Mark Stamp Department of Computer Science, San Jose State University

Series: Chapman & Hall/CRC Machine Learning & Pattern Recognition

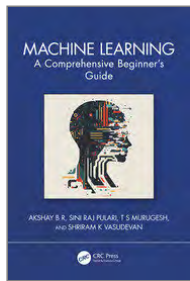
Introduction to Machine Learning with Applications in Information Security, Second Edition provides a classroom-tested introduction to a wide variety of machine learning and deep learning algorithms and techniques, reinforced via realistic applications. The book is accessible and doesn't prove theorems, or dwell on mathematical theory. The goal is to present topics at an intuitive level, with just enough detail to clarify the underlying concepts. The applications presented serve to demystify the topics by illustrating the use of various learning techniques in straightforward scenarios.

Chapman & Hall
December 2024 : 548pp
Pb: 978-1-032-20717-9 : **£47.99**
Hb: 978-1-032-20492-5 : **£70.99**
eBook: 978-1-003-26487-3

* For full contents and more information, visit: www.routledge.com/9781032207179

Machine Learning

A Comprehensive Beginner's Guide



Akshay B R, **Sini Raj Pulari**, **T.S. Murugesh Govt. College of Engineering Srirangam, Tamil Nadu**, **Shriram K. Vasudevan Intel India Pvt Ltd., Tamil Nadu**

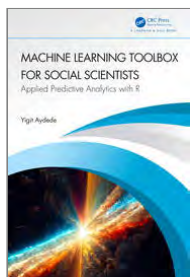
Machine learning is a dynamic and rapidly expanding field focused on creating algorithms that empower computers to recognize patterns, make predictions, and continually enhance performance. Dive into this fascinating field to master machine learning concepts with the step-by-step approach outlined in this book and contribute to its exciting future.

CRC Press
July 2024 : 258pp
Pb: 978-1-032-67666-1 : **£50.99**
Hb: 978-1-032-67665-4 : **£135**
eBook: 978-1-032-67668-5

* For full contents and more information, visit: www.routledge.com/9781032676661

Machine Learning Toolbox for Social Scientists

Applied Predictive Analytics with R



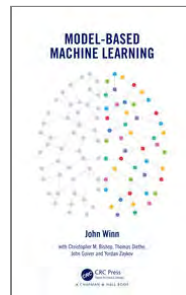
Yigit Aydede Professor, Saint Mary's University

Machine Learning Toolbox for Social Scientists covers predictive methods with complementary statistical "tools" that make it mostly self-contained. The inferential statistics is the traditional framework for most data analytics courses in social science and business fields, especially in Economics and Finance. The new organization that this book offers goes beyond standard machine learning code applications, providing intuitive backgrounds for new predictive methods that social science and business students can follow. The modern statistical methods the book provides allows it to be effectively used in teaching in the social science and business fields.

Chapman & Hall
September 2023 : 600pp
Hb: 978-1-032-46395-7 : **£86.99**
eBook: 978-1-003-38150-1

* For full contents and more information, visit: www.routledge.com/9781032463957

Model-Based Machine Learning



John Winn Microsoft Research Ltd., Cambridge, United Kingdom

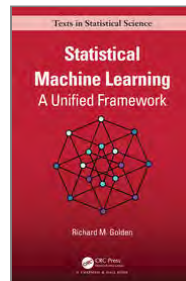
Machine learning is being applied to a growing variety of problems in a variety of domains. A fundamental challenge when using machine learning is connecting the abstract mathematics of a machine learning technique to real world problems. This book tackles this through model-based machine learning, focusing on understanding the assumptions encoded in a machine learning system and their impact on the behaviour of the system. The key ideas of model-based machine learning are introduced through case studies involving real-world applications. It aims not just to explain machine learning methods, but also how to create, debug, and evolve them to solve a problem.

Chapman & Hall
October 2023 : 468pp
Hb: 978-1-498-75681-5 : **£75.99**
eBook: 978-0-429-19268-5

* For full contents and more information, visit: www.routledge.com/9781498756815

Statistical Machine Learning

A Unified Framework



Richard Golden

Series: Chapman & Hall/CRC Texts in Statistical Science

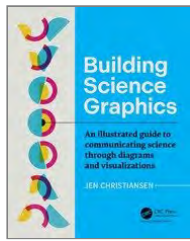
For advanced undergraduate students, graduate students, and professional. Presents a wide range of popular, disparate, and diverse machine learning algorithms within a unified theoretical framework, characterized by a collection of carefully chosen theorems from the fields of nonlinear optimization theory and mathematical statistics which respectively characterize both asymptotic behavior and generalization performance. The purpose is to teach students how to confidently apply these theorems in practice. The only required mathematical prerequisites are lower-division linear algebra, lower-division calculus, and an upper-division calculus-based course in probability theory.

Chapman & Hall
July 2020 : 524pp
Hb: 978-1-138-48469-6 : **£125**
eBook: 978-1-351-05150-7

* For full contents and more information, visit: www.routledge.com/9781138484696

Building Science Graphics

An Illustrated Guide to Communicating Science through Diagrams and Visualizations



Jen Christiansen

Series: AK Peters Visualization Series

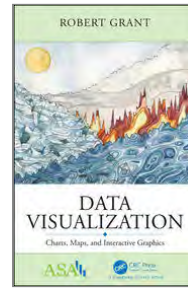
Building Science Graphics is a practical guide for anyone interested in creating science-centric illustrated explanatory diagrams. Starting with a clear introduction to the concept of information graphics and their role in contemporary science communication, it then outlines a process for creating graphics using evidence-based design strategies. The heart of the book is composed of two step-by-step graphical worksheets, designed to help jump-start any new project.

A K Peters/CRC Press
August 2022 : 357pp
Pb: 978-1-032-10674-8 : **£44.99**
Hb: 978-1-032-10940-4 : **£105**
eBook: 978-1-003-21781-7

* For full contents and more information, visit: www.routledge.com/9781032106748

Data Visualization

Charts, Maps, and Interactive Graphics



Robert Grant Kingston University & St George's, University of London

Series: ASA-CRC Series on Statistical Reasoning in Science and Society

This is the age of data. There are more innovations and more opportunities for interesting work with data than ever before, but there is also an overwhelming amount of quantitative information being published every day. Data visualisation has become big business, because communication is the difference between success and failure, no matter how clever the analysis may have been. The ability to visualize data is now a skill in demand across business, government, NGOs and academia. Data Visualization: Charts, Maps, and Interactive Graphics gives an overview of a wide range of techniques and challenges, while staying accessible to anyone interested in working with and understanding data.

Chapman & Hall
December 2018 : 248pp
Pb: 978-1-138-70760-3 : **£24.99**
Hb: 978-1-138-55359-0 : **£89.99**
eBook: 978-1-315-20135-1

* For full contents and more information, visit: www.routledge.com/9781138707603

CHART

Designing Creative Data Visualizations from Charts to Art



Nadieh Bremer

Series: AK Peters Visualization Series

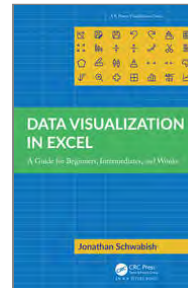
CHART is a guide to unleashing creativity in data visualization. It takes you on a journey along the spectrum from an ordinary chart to data art, packed with ways to bring more creativity into any visualization. It will help to make your visuals more compelling and memorable, long after the numbers have been crunched. The author shares thirteen hands-on, tool-agnostic lessons, each filled with actionable insights and unique perspectives. Between these core lessons, you'll find tips, mini-chapters, and dozens of real-world examples from both client and personal projects. Designed for journalists, data analysts, business professionals, and newcomers alike.

A K Peters/CRC Press
June 2025 : 284pp
Hb: 978-1-032-79775-5 : **£37.99**
eBook: 978-1-003-49780-6

* For full contents and more information, visit: www.routledge.com/9781032797755

Data Visualization in Excel

A Guide for Beginners, Intermediates, and Wonks



Jonathan Schwabish

Series: AK Peters Visualization Series

Data Visualization in Excel closes the gap between what people think Excel can do and what they can achieve in the tool. Over the past few years, recognition of the importance of effectively visualizing data has led to an explosion data analysis and visualization software tools. But for many people, Microsoft Excel continues to be the workhorse for their data visualization needs, not to mention the only tool that many data workers have access to. This book is the perfect guide for anyone who wants to create better, more effective, and more engaging data visualizations.

A K Peters/CRC Press
May 2023 : 400pp
Pb: 978-1-032-34326-6 : **£26.99**
Hb: 978-1-032-34328-0 : **£81.99**
eBook: 978-1-032-48782-3 : **£22.99**

* For full contents and more information, visit: www.routledge.com/9781032343266

Data Sketches

A journey of imagination, exploration, and beautiful data visualizations



Nadieh Bremer, Shirley Wu

Series: AK Peters Visualization Series

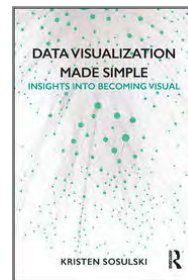
In Data Sketches, Nadieh Bremer and Shirley Wu document the creative and collaborative process behind 24 unique data visualization projects, spanning different topics, technologies, and forms. Features: Technical write-ups with beginner-friendly explanations of core concepts; Practical lessons on data and design challenges; Full-color; Interview with Tamara Munzner; Foreword by Alberto Cairo. This book is perfect for anyone interested or working in data visualization and information design, especially those who want to take their work to the next level and are inspired by unique and compelling data-driven storytelling.

A K Peters/CRC Press
February 2021 : 428pp
Pb: 978-0-367-00008-0 : **£41.99**
Hb: 978-0-367-00012-7 : **£115**
eBook: 978-0-429-44501-9

* For full contents and more information, visit: www.routledge.com/9780367000080

Data Visualization Made Simple

Insights into Becoming Visual



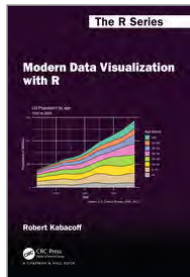
Kristen Sosulski New York University, USA

Data Visualization Made Simple is a practical guide to the fundamentals, strategies, and real-world cases for data visualization, an essential skill required in today's information-rich world. With foundations rooted in statistics, psychology, and computer science, data visualization offers practitioners in almost every field a coherent way to share findings from original research, big data, learning analytics, and more. Both novices and seasoned designers in education, business, and other areas can use this book's effective, linear process to develop data visualization literacy and promote exploratory, inquiry-based approaches to visualization problems.

Routledge
October 2018 : 284pp
Pb: 978-1-138-50391-5 : **£39.99**
Hb: 978-1-138-50387-8 : **£160**
eBook: 978-1-315-14609-6

* For full contents and more information, visit: www.routledge.com/9781138503915

Modern Data Visualization with R



Robert Kabacoff

Series: Chapman & Hall/CRC The R Series

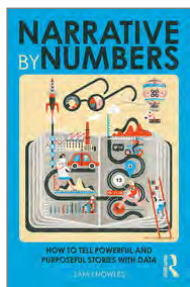
Describes ways that raw and summary data can be turned into visualizations that convey meaningful insights: basic graphs, bar charts, scatter plots, and line charts, and progresses to tree maps, alluvial plots, radar charts, mosaic plots, grouped dot plots, effects plots, multivariate presentations such as corrgrams, biplots, network diagrams.

Chapman & Hall
March 2024 : 271pp
Pb: 978-1-032-28760-7 : **£67.99**
Hb: 978-1-032-28949-6 : **£175**
eBook: 978-1-003-29927-1

* For full contents and more information, visit: www.routledge.com/9781032287607

Narrative by Numbers

How to Tell Powerful and Purposeful Stories with Data



Sam Knowles

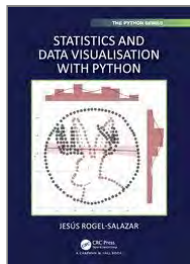
Series: Using Data Better

As jobs in the knowledge economy become increasingly similar, there are two core skills that everyone needs if they are going to thrive and succeed and to make a difference. These are the ability to interrogate and make sense of data, and the ability to use the insights extracted from the data to persuade others to take action. Analytics + storytelling = influence. Humans are hardwired to respond to stories and story structure. There are some simple and effective rules of data-driven storytelling that will help everyone tell more compelling, evidence-based stories, whoever they need to convince to create positive change. Narrative by Numbers shows you how.

Routledge
March 2018 : 176pp
Pb: 978-0-815-35314-0 : **£39.99**
Hb: 978-0-815-35315-7 : **£155**
eBook: 978-1-351-13722-5

* For full contents and more information, visit: www.routledge.com/9780815353140

Statistics and Data Visualisation with Python



Jesús Rogel-Salazar Imperial College London, UK

Series: Chapman & Hall/CRC The Python Series

Statistics and Data Visualisation with Python aims to build statistical knowledge from the ground up by enabling the reader to understand the ideas behind inferential statistics, and begin to formulate hypotheses that form the foundations for the applications and algorithms in statistical analysis, business analytics, machine learning and applied machine learning. This book is intended to serve as a bridge in statistics for graduates and business practitioners interested in using their skills in the area of statistical science, and data science and analytics, acting as a refresher for readers that have taken some courses in statistics, but no not necessarily use it in their daily work.

Chapman & Hall
January 2023 : 554pp
Pb: 978-0-367-74451-9 : **£49.99**
Hb: 978-0-367-74936-1 : **£135**
eBook: 978-1-003-16035-9

* For full contents and more information, visit: www.routledge.com/9780367744519

The Data Storytelling Workbook



Anna Feigenbaum , Aria Alamalhodaie

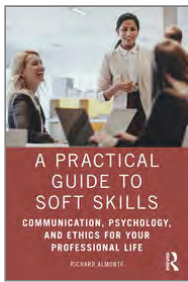
From tracking down information to symbolising human experiences, this book is your guide for telling more effective, empathetic and evidence-based data stories. Wide-ranging and in-depth, this interdisciplinary book is essential for students and researchers in journalism, communication, media, visual arts and cultural studies, as well as any who use data analysis and visualisation within their field.

Routledge
March 2020 : 256pp
Pb: 978-1-138-05211-6 : **£38.99**
Hb: 978-1-138-05210-9 : **£155**
eBook: 978-1-315-16801-2

* For full contents and more information, visit: www.routledge.com/9781138052116

A Practical Guide to Soft Skills

Communication, Psychology, and Ethics for Your Professional Life



Richard Almonte

This accessible text overviews the range of soft skills sought after by employers and provides a practical guide to developing and effectively demonstrating these skills. The book can be used as a supplement for communication, business, and career-oriented courses, and will be of interest to individual students and junior professionals as well as career counsellors, postsecondary instructors across the curriculum, and professionals in human resources and learning and development.

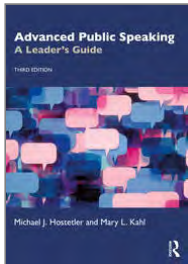
Routledge
December 2021 : 188pp
Pb: 978-1-032-07105-3 : **£47.99**
Hb: 978-1-032-08101-4 : **£160**
eBook: 978-1-003-21294-2

* For full contents and more information, visit: www.routledge.com/9781032071053

3RD EDITION

Advanced Public Speaking

A Leader's Guide



Michael J. Hostetler St. John's University, USA, **Mary L. Kahl**

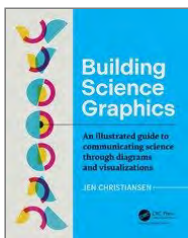
Providing users with the opportunity to increase their speaking abilities across a wide variety of complex and specific contexts, this student-engagement focused and flexible text serves as a core textbook for upper-level undergraduate public speaking courses.

Routledge
March 2024 : 212pp
Pb: 978-1-032-53186-1 : **£66.99**
Hb: 978-1-032-53187-8 : **£150**
eBook: 978-1-003-41078-2

* For full contents and more information, visit: www.routledge.com/9781032531861

Building Science Graphics

An Illustrated Guide to Communicating Science through Diagrams and Visualizations



Jen Christiansen

Series: *AK Peters Visualization Series*

Building Science Graphics is a practical guide for anyone interested in creating science-centric illustrated explanatory diagrams. Starting with a clear introduction to the concept of information graphics and their role in contemporary science communication, it then outlines a process for creating graphics using evidence-based design strategies. The heart of the book is composed of two step-by-step graphical worksheets, designed to help jump-start any new project.

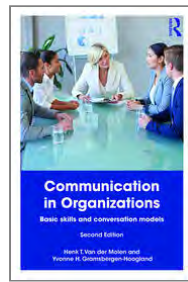
A K Peters/CRC Press
August 2022 : 357pp
Pb: 978-1-032-10674-8 : **£44.99**
Hb: 978-1-032-10940-4 : **£105**
eBook: 978-1-003-21781-7

* For full contents and more information, visit: www.routledge.com/9781032106748

2ND EDITION

Communication in Organizations

Basic Skills and Conversation Models



Henk T. Van der Molen, **Yvonne Gramsbergen-Hoogland**

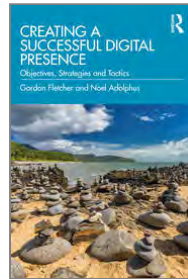
This new edition continues to give clear advice and guidance on communicating in a range of different contexts in the workplace. From handling complaints and breaking bad news to negotiating deals and giving presentations, the book explores the building blocks to effective communication skills, nurturing the leadership qualities required in any organization. Illustrated with concrete examples throughout, the new edition includes a new chapter on career coaching, as well as exercises and ideas for role-play to enable the ideas to come alive. This will be an invaluable book for students of management and business psychology, as well as those taking courses who are already in the workplace.

Routledge
October 2018 : 214pp
Pb: 978-1-138-55212-8 : **£35.99**
Hb: 978-1-138-55210-4 : **£155**
eBook: 978-1-315-14796-3

* For full contents and more information, visit: www.routledge.com/9781138552128

Creating a Successful Digital Presence

Objectives, Strategies and Tactics



Gordon Fletcher, **Noel Adolphus**

Increasingly graduates, and anyone entering employment, need an individual digital presence to showcase themselves to secure their first professional role. It takes an employability approach to encourage readers to recognise and deliver an effective digital presence. By using a strategic and systematic process, this book draws together academic thinking with practical outcomes. It is essential reading for advanced undergraduate and postgraduate students studying any discipline related to the digital world, particularly digital marketing and digital business, entrepreneurship and strategy, as well as those taking employability and personal professional development programmes.

Routledge
July 2021 : 212pp
Pb: 978-0-367-46037-2 : **£41.99**
Hb: 978-0-367-46034-1 : **£155**
eBook: 978-1-003-02658-7

* For full contents and more information, visit: www.routledge.com/9780367460372

English for Business Communication



Mable Chan

Series: *Routledge Applied English Language Introductions*

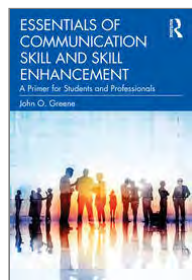
This textbook provides a comprehensive introduction for students and professionals who are studying English for business or workplace communication and covers both spoken and written English. Based on up-to-date research in business communication and incorporating an international range of real-world authentic texts, this book deals with the realities of communication in business today. This book goes beyond the traditional coverage of business English to provide a broad and practical textbook for those studying English in a workplace setting.

Routledge
January 2020 : 246pp
Pb: 978-1-138-48168-8 : **£39.99**
Hb: 978-1-138-48167-1 : **£155**
eBook: 978-1-351-06003-5

* For full contents and more information, visit: www.routledge.com/9781138481688

Essentials of Communication Skill and Skill Enhancement

A Primer for Students and Professionals



John O. Greene

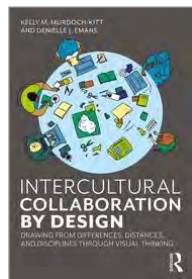
For those who wish to learn or teach the tools of skillful communication, this book provides concrete insight into what makes a person a successful communicator. Predicated on four simple notions—that communication can be done well or poorly, that communication skills matter, that people differ in those skills, and that those skills can be improved—the book helps readers identify and enhance their own communication strengths and address weaknesses, assess the communication skills of others, and coach others to improvement. This book is written for students and professionals in fields such as human resources, sales, training, counseling, customer relations, education, and healthcare.

Routledge
March 2021 : 174pp
Pb: 978-0-367-53428-8 : **£40.99**
Hb: 978-0-367-53838-5 : **£155**
eBook: 978-1-003-08345-0

* For full contents and more information, visit: www.routledge.com/9780367534288

Intercultural Collaboration by Design

Drawing from Differences, Distances, and Disciplines Through Visual Thinking



Kelly Murdoch-Kitt, Denielle Emans

Intercultural Collaboration by Design introduces a framework for collaborating across cultures and learning to use multicultural perspectives to address pressing global issues. With over 30 hands-on activities, this book will be of great interest to diverse teams from a variety of disciplines who want to enhance intercultural learning and co-working. Whether in the classroom or workplace, the activities are appropriate for a variety of collaboration contexts, without a need for background in art or design.

Routledge
January 2020 : 308pp
Pb: 978-0-367-21931-4 : **£35.99**
Hb: 978-0-367-21932-1 : **£140**
eBook: 978-0-429-26882-3

* For full contents and more information, visit: www.routledge.com/9780367219314

Interpersonal Skills for Group Collaboration

Creating High-Performance Teams in the Classroom and the Workplace



Tammy Rice-Bailey Milwaukee School of Engineering, USA, **Felicia Chong**

This lively and engaging text introduces readers to the core interpersonal and organizational skills needed to effectively collaborate on group projects in the classroom and the workplace. This guide can be used as a supplementary text for any courses involving group projects, and will also be of interest to professionals in communication, business, and many other fields.

Routledge
February 2023 : 142pp
Pb: 978-1-032-25906-2 : **£38.99**
Hb: 978-1-032-25907-9 : **£140**
eBook: 978-1-003-28557-1

* For full contents and more information, visit: www.routledge.com/9781032259062

Presenting in English

A Practical Guide



Dick Smakman

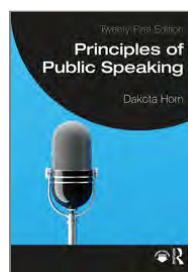
This practical guide introduces students to the language and other skills needed to deliver a presentation in English. Concise and accessible, the guide will be particularly helpful to learners of English. Accompanied by online support material with recordings, the book is an essential guide to delivering a successful presentation in English.

Routledge
June 2024 : 230pp
Pb: 978-1-032-62532-4 : **£40.99**
Hb: 978-1-032-62787-8 : **£155**
eBook: 978-1-032-62789-2

* For full contents and more information, visit: www.routledge.com/9781032625324

21ST EDITION

Principles of Public Speaking



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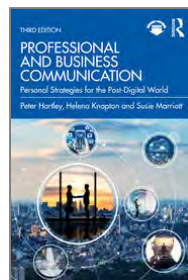
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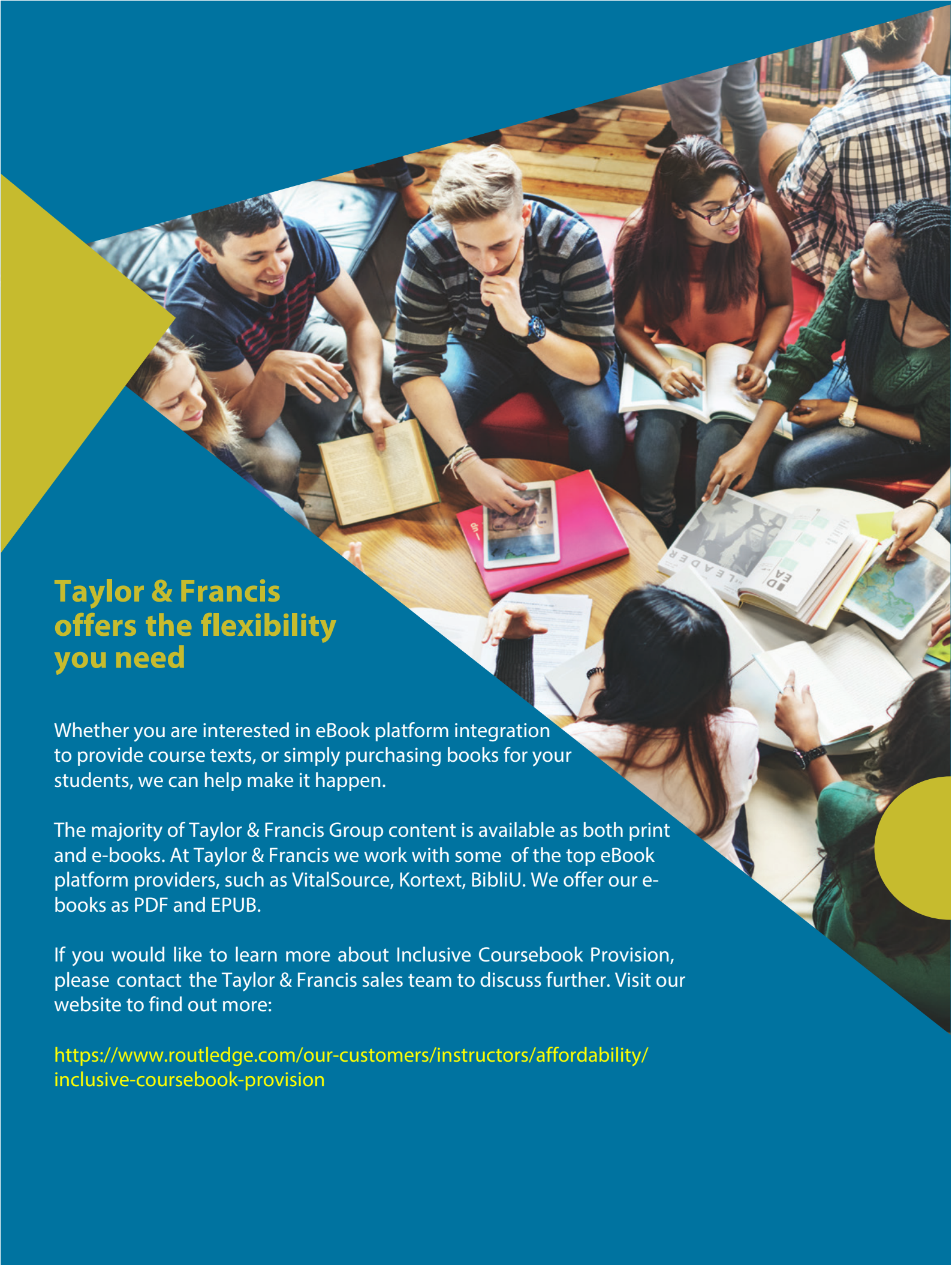
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