An Applied Course In Real Options Valuation Thomson South Western Finance

Studyguide for an Applied Course in Real Options Valuation by Shockley, Richard L.Cram101

Genre theory in the past few years has contributed immensely to our understanding of the way discourse is used in academic, professional and institutional contexts. However, its development has been constrained by the nature and design of its applications, which have invariably focused on language teaching and learning, or communication training and consultation. This has led to the use of simplified and idealised genres. In contrast to this, the real world of discourse is complex, dynamic and unpredictable. This tension between the real world of written discourse and its representation in applied genre-based literature is the main theme of this book.

Presents Real & Complex Analysis Together Using a Unified Approach A two-semester course in analysis at the advanced undergraduate or first-year graduate level Unlike other undergraduate-level texts, Real and Complex Analysis develops both the real and complex theory together. It takes a unified, elegant approach to the theory that is consistent with the recommendations of the MAA’s 2004 Curriculum Guide. By presenting real and complex analysis together, the authors illustrate the connections and differences between these two branches of analysis right from the beginning. This combined development also allows for a more streamlined approach to real and complex function theory. Enhanced by more than 1,000 exercises, the text covers all the essential topics usually found in separate treatments of real analysis and complex analysis. Ancillary materials are available on the book’s website. This book offers a unique, comprehensive presentation of both real and complex analysis. Consequently, students will no longer have to use two separate textbooks—one for real function theory and one for complex function theory.

Henry O. Pollak Chairman of the International Program Committee Bell Laboratories Murray Hill, New Jersey, USA The Fourth International Congress on Mathematics Education was held in Berkeley, California, USA, August 10-16, 1980. Previous Congresses were held in Lyons in 1969, Exeter in 1972, and Karlsruhe in 1976. Attendance at Berkeley was about 1800 full and 500 associate members from about 90 countries; at least half of these come from outside of North America. About 450 persons participated in the program either as speakers or as presiders; approximately 40 percent of these came from the U.S. or Canada. There were four plenary addresses; they were delivered by Hans Freudenthal on major problems of mathematics education, Hermina Sinclair on the relationship between the learning of language and of mathematics, Seymour Papert on the computer as carrier of mathematical culture, and Hua Loo-Keng on popularising and applying mathematical methods. Gearge Polya was the

honorary president of the Congress; illness prevented his planned attendence but he sent a brief presentation entitled, "Mathematics Improves the Mind". There was a full program of speakers, panelists, debates, miniconferences, and meetings of working and study groups. In addition, 18 major projects from around the world were invited to make presentations, and various groups representing special areas of concern had the opportunity to meet and to plan their future activities.

The content of this course covers essential contract law, both national and Nevada-specific, and the laws of agency, likewise both national and specific to Nevada. In addition, and along related lines, the program presents a terse review of the issues defining and impacting the broker – sales associate relationship. The program ends with a comprehensive survey of risk management and how to manage risk minimization in your brokerage practice, particularly in contexts that impact contracts, agency, and activities within the brokerage. As a format preview, this course is comprised of seven chapters. Each chapter begins with an informative text narrative summarizing key points of required content. Subsequently, participants will be given quiz questions following each chapter. Following Chapter 3 and Chapter 7, students will engage in a skills workshop focusing on conveyance contracts and brokerage agreements, respectively. Students will be required to participate by answering problem-solving questions and situations. The intent of these chapters, and the program as a whole, is to give students an interactive opportunity to focus on the day-to-day skills of contracting, working with clients, and managing one’s practice so that such practice can be delivered in a professional manner and in full compliance with Nevada’s many underlying laws and regulations.

“This book does an excellent job of tracing the history of the movement and where it stands today. It discusses the political context when these discussions happen in states and the education implications when institutions take on this additional mission. This book may or may not convert those who are concerned about ‘mission creep’ of community colleges, but it sure will give them something to think about. Clearly we cannot continue to do business as we have always done and expect to meet the growing demand for college educated citizens. This book provides some thoughts on how to create a new model going forward and it deserves serious consideration.” —from the Foreword by Carol D’Amico The premise of this book is that, in a globalized economy dependent on innovation and knowledge, higher education must provide greater, more affordable access to the acquisition of higher-level skills and knowledge for a greater proportion of the population. The purpose of this book is to open up a debate about the status quo. Should four-year institutions remain the near-exclusive conferrers of the baccalaureate? Or is there a legitimate role for community colleges who already educate over half the undergraduate population of the United States, at lower cost with few barriers to access? The contributors examine the capacities of four-year colleges to deliver training for technical

occupations; the ability of community colleges to deliver rigorous, high-quality courses; and issues of access, affordability, faculty development, and responsiveness to changing needs. A chapter devoted to student voices provides the critical perspective of this constituency. The book concludes by describing examples of implementation across the United States, reviewing different models of articulation as well as promising practices that include eliminating the need for transfer altogether. Alternative Pathways to the Baccalaureate provides vital information and new research for policymakers, community college leaders, and scholars of higher education to provoke much-needed debate. Published in association with the Community College Baccalaureate Association

Interest and initiatives in agroforestry education and training, as in other aspects of agroforestry development, have increased tremendously during the past decade. Coordination of such educational activities was initiated by the first international workshop on education in agroforestry organized by the International Council for Research in Agroforestry (ICRAF) in Decem ber 1982, at Nairobi, Kenya. Since then, agroforestry has been incorporated into the curricula of many educational and training institutions around the world. Moreover, several institutions have developed entire academic programs specifically in agroforestry. However, most of these activities are still isolated initiatives, without common strategies or philosophies. This second international agroforestry workshop was therefore planned to pro vide a forum for reviewing progress, sharing programs and experiences, and planning and coordinating future directions in agroforestry education and training. The main objectives were to review the on-going programs, to assess the scope of professional education and training in relation to the perceived needs of trained personnel, to recommend guidelines for further program development, and to establish networking among institutions and agencies involved in agroforestry education and training. These proceedings contain the keynote papers, regional/country presenta tions and conclusions and recommendations of the International Workshop on Education and Training in Agroforestry held at the University of Florida, Gainesville, USA in December, 1988. The strategy of the workshop was to facilitate focused discussion on identified issues by an invited group of world leaders in agroforestry education and training.

Not sure what to do after your GCSEs? Are you overwhelmed by the options? Choosing Your A Levels is the only impartial guide which will clearly provide you with all your options post-16. Whether you have decided to study A Levels, an advanced diploma or any other further education qualification, this comprehensive guide will help you take the next steps in your education. If you want more advice on which subjects to take or whether you want to learn more about how they are structured, Choosing Your A Levels provides you with all the information you need to make tough choices and continue into further education. Containing the latest information on AS Levels this book will successfully guide you into further education. Choosing Your A Levels is easy to navigate if you want information about a particular qualification or as a detailed overview of all the major post-16 further education options. Inside you'll find: *

Guidance on choosing the right qualification for you and indications of what the different qualifications can lead to * A directory of subjects by qualification for quick reference * Exam tips and preparation to ease the pressure * Advice to help you succeed when you get there Students all have different strengths, so Choosing Your A Levels explains the involvement and details of each qualification showing how each qualification suits different learning styles. This means you have all the information you need at your fingertips to make a personal and informed choice matching yourself with a qualification that works with your strengths, whether they are practical skills or personal attributes, for a successful post-16 education. For more help and advice on choosing other post-16 qualifications please see other titles in the series; Choosing Your Apprenticeship and Choosing Your Diploma.

How math can be used to improve performance and predict outcomes in professional sports Mathletics is a remarkably entertaining book that shows readers how to use simple mathematics to analyze a range of statistical and probability-related questions in professional baseball, basketball, and football, and in sports gambling. How does professional baseball evaluate hitters? Is a singles hitter like Wade Boggs more valuable than a power hitter like David Ortiz? Should NFL teams pass or run more often on first downs? Could professional basketball have used statistics to expose the crooked referee Tim Donaghy? Does money buy performance in professional sports? In Mathletics, Wayne Winston describes the mathematical methods that top coaches and managers use to evaluate players and improve team performance, and gives math enthusiasts the practical tools they need to enhance their understanding and enjoyment of their favorite sports—and maybe even gain the outside edge to winning bets. Mathletics blends fun math problems with sports stories of actual games, teams, and players, along with personal anecdotes from Winston's work as a sports consultant. Winston uses easy-to-read tables and illustrations to illuminate the techniques and ideas he presents, and all the necessary math concepts—such as arithmetic, basic statistics and probability, and Monte Carlo simulations—are fully explained in the examples. After reading Mathletics, you will understand why baseball teams should almost never bunt, why football overtime systems are unfair, why points, rebounds, and assists aren't enough to determine who's the NBA's best player—and much, much more. In a new epilogue, Winston discusses the stats and numerical analysis behind some recent sporting events, such as how the Dallas Mavericks used analytics to become the 2011 NBA champions.

The new edition of a concise and nontechnical but rigorous introductory text that emphasizes fundamental concepts and real-world applications, thoroughly revised and updated. This introductory text offers an alternative to the encyclopedic, technically oriented approach taken by traditional textbooks on macroeconomic principles. Concise and nontechnical but rigorous, its goal is not to teach students to shift curves on diagrams but to help them understand fundamental macroeconomic concepts and their real-world applications. It accomplishes this by providing a clear exposition of introductory macroeconomic theory along with more than 700 one- or two-sentence “news clips,” based on economics media coverage, as illustrations or student exercises. Although the writing is accessible, end-of-chapter questions are challenging, requiring a thorough understanding of related macroeconomic concepts, critical-thinking skills, and an ability to make connections to the real world. This fourth edition has been

thoroughly revised and updated, with new material on such topics as aggregate supply and demand, supply-side models, recent issues faced by the Federal Reserve, the role of government, and “burst bubbles.” The more challenging end-of-chapter questions are separated out, and news clip questions have been added that refer to recent events. Optional chapter appendixes offer technical material; other appendixes provide answers to sample exam questions and to even-numbered end-of-chapter questions. Text boxes (“curiosities”) offer short expositions of related topics. The book can be used as a text for principles of macroeconomics and applied macroeconomics courses, as a supplementary text for a traditional macro-principles course, or for MBA macroeconomics courses.

A clear and efficient balance between theory and application of statistical modeling techniques in the social and behavioral sciences Written as a general and accessible introduction, Applied Univariate, Bivariate, and Multivariate Statistics provides an overview of statistical modeling techniques used in fields in the social and behavioral sciences. Blending statistical theory and methodology, the book surveys both the technical and theoretical aspects of good data analysis. Featuring applied resources at various levels, the book includes statistical techniques such as t-tests and correlation as well as more advanced procedures such as MANOVA, factor analysis, and structural equation modeling. To promote a more in-depth interpretation of statistical techniques across the sciences, the book surveys some of the technical arguments underlying formulas and equations. Applied Univariate, Bivariate, and Multivariate Statistics also features Demonstrations of statistical techniques using software packages such as R and SPSS® Examples of hypothetical and real data with subsequent statistical analyses Historical and philosophical insights into many of the techniques used in modern social science A companion website that includes further instructional details, additional data sets, solutions to selected exercises, and multiple programming options An ideal textbook for courses in statistics and methodology at the upper- undergraduate and graduate-levels in psychology, political science, biology, sociology, education, economics, communications, law, and survey research, Applied Univariate, Bivariate, and Multivariate Statistics is also a useful reference for practitioners and researchers in their field of application. DANIEL J. DENIS, PhD, is Associate Professor of Quantitative Psychology at the University of Montana where he teaches courses in univariate and multivariate statistics. He has published a number of articles in peer-reviewed journals and has served as consultant to researchers and practitioners in a variety of fields.

Praise for Real Options Analysis Course "Dr. Mun's latest book is a logical extension of the theory and application presented in Real Options Analysis. More specifically, the Real Options Analysis Course presents numerous real options examples and provides the reader with step-by-step problem-solving techniques. After having read the book, readers will better understand the underlying theory and the opportunities for applying real option theory in corporate decision-making." -Chris D. Treharne, President, Gibraltar Business Appraisals, Inc. "This text provides an excellent follow up to Dr. Mun's first book, Real Options Analysis. The cases in Real Options Analysis Course provide numerous examples of how the use of real options and the Real Options Analysis Toolkit software can assist in the valuation of strategic and managerial flexibility in a variety of arenas." -Charles T. Hardy, PhD, Chief Financial Officer & Director of Business Development, Panorama Research, Inc. "Most of us come to real

options from the perspective of our own areas of expertise. Mun's great skill with this book is in making real options analysis understandable, relevant, and immediately applicable to the field within which you are working." -Robert Fourt, Partner, Gerald Eve (UK) "Mun provides a practical step-by-step guide to applying simulation and real options analysis-invaluable to those of us who are no longer satisfied with conventional valuation approaches alone." -Fred Kohli, Head of Portfolio Management, Syngenta Crop Protection Ltd. (Switzerland)

This introductory course seeks to communicate the vitality of applied economics to students of the subject. Combining information and analysis over 29 separate topic areas, the text examines the controversies which arise and gives an insight into the difficulties of formulating and implementing economic policy in the real world.

Florida School Laws is an ideal volume for Florida education professionals, state education employees, and attorneys with an education law practice. Our expert editorial team has carefully tailored the scope to ensure that educators and attorneys alike will have the most comprehensive and useful statutory reference available. Completely updated and featuring a Table of Sections Affected by recent legislation, Florida School Laws is a critical resource for anyone who needs to keep abreast of developments in this dynamic area of the law.

This book examines the work experiences of twenty-five young men and women in their first jobs following high school. The case studies profiled here describe in detail the process of young workers becoming established in our society. The workplaces in which Kathryn M. Borman and her colleagues spent full shifts once a month for over a year were the locales for young workers' first "real" jobs--jobs they held for more than six months and viewed as a means of entree to adult responsibilities. This study is one of the first to provide an intimate picture of the daily work lives of young factory workers, bank clerks, health spa employees and others who hold jobs in the youth labor market. How jobs provide opportunities for some and hold little hope for advancement for most is vividly described. How employers can improve working conditions for their young employees--especially young women--is clearly apparent in this analysis of the workplace as a "democratic community." Sociologists and others in the fields of education, labor market economics, women's studies, and the anthropology of work will find this volume important reading.

APPLIED COURSE IN REAL OPTIONS VALUATION, offers an excellent guide to option pricing in today's fast paced business world. This innovative text not only provides the theories of option pricing but includes real-world examples and situations.

The volume consists of twenty-five chapters selected from among peer-reviewed papers presented at the CELDA (Cognition and Exploratory Learning in the Digital Age) 2013 Conference held in Fort Worth, Texas, USA, in October 2013 and also from world class scholars in e-learning systems, environments and approaches. The following sub-topics are included: Exploratory Learning Technologies (Part I), e-Learning social web design (Part II), Learner communities through e-Learning implementations (Part III), Collaborative and student-centered e-Learning design (Part IV). E-Learning has been, since its initial stages, a synonym for flexibility. While this dynamic nature has mainly been associated with time and space it is safe to argue that currently it embraces other aspects such as the learners’ profile, the scope of subjects that can be taught electronically and the technology it employs. New technologies also widen the range of

activities and skills developed in e-Learning. Electronic learning environments have evolved past the exclusive delivery of knowledge. Technology has endowed e-Learning with the possibility of remotely fomenting problem solving skills, critical thinking and team work, by investing in information exchange, collaboration, personalisation and community building.

Never HIGHLIGHT a Book Again Includes all testable terms, concepts, persons, places, and events. Cram101 Just the FACTS101 studyguides gives all of the outlines, highlights, and quizzes for your textbook with optional online comprehensive practice tests. Only Cram101 is Textbook Specific. Accompanies: 9780872893795. This item is printed on demand.

One of the most popular introductory texts in its field, Statistics for Technology: A Course in Applied Studies presents the range of statistical methods commonly used in science, social science, and engineering.The mathematics are simple and straightforward; statistical concepts are explained carefully; and real-life (rather than contrived) examples are used throughout the chapters.Divided into three parts, the Introduction describes some simple methods of summarizing data. Theory examines the basic concepts and theory of statistics. Applications covers the planning and procedures of experiments, quality control, and life testing.Revised throughout, this Third Edition places a higher priority on the role of computers in analysis, and many new references have been incorporated. A new appendix describes general methods of tackling statistical problems, including guidance on literature searching and report writing.

Developments in technologies have evolved in a much wider use of technology throughout science, government, and business; resulting in the expansion of geographic information systems. GIS is the academic study and practice of presenting geographical data through a system designed to capture, store, analyze, and manage geographic information. Geographic Information Systems: Concepts, Methodologies, Tools, and Applications is a collection of knowledge on the latest advancements and research of geographic information systems. This book aims to be useful for academics and practitioners involved in geographical data.

From small law offices to federal agencies, all entities within the justice system are governed by complicated economic factors and face daily financial decision-making. A complement to Strategic Finance for Criminal Justice Organizations, this volume considers the justice system from a variety of economic and financial perspectives and introduces quantitative methods designed to improve the efficiency and effectiveness of organizations in both the non-profit and for-profit sectors. Using only a minimum of theory, Economic and Financial Analysis for Criminal Justice Organizations demonstrates how to make decisions in the justice system using multiple financial and economic models. Designed for readers with little knowledge of advanced mathematics, quantitative analysis, or spreadsheets, the book presents examples using straightforward, step-by-step processes with Excel and Linux Calc spreadsheet software. A variety of different types of decisions are considered, ranging from municipal bond issuance and valuation necessary for public revenues, pension planning, capital investment, determining the best use of monies toward construction projects, and other resource planning, allocation, and forecasting issues. From municipalities and police departments to for-profit prisons and security firms, the

quantitative methods presented are designed to improve the efficiency and effectiveness of all organizations in the justice domain.

Real and Relevant provides teachers with a realistic, integrated, and inspirational guide for how to lead service and project-based learning with their students. By engaging in service or project-based learning with students, you are doing nothing less than changing the world for the better. By letting your students explore and begin to solve real life problems, they acquire deeper knowledge, new skills, newfound motivation, responsibility and engagement.

This book contains selected papers from the symposium "Operations Research 2010" which was held from September 1-3, 2010 at the "Universität der Bundeswehr München", Germany. The international conference, which also serves as the annual meeting of the German Operations Research Society (GOR), attracted more than 600 participants from more than thirty countries. The general theme "Mastering Complexity" focusses on a natural component of the globalization process. Financial markets, traffic systems, network topologies and, last but not least, energy resource management, all contain complex behaviour and economic interdependencies which necessitate a scientific solution. Operations Research is one of the key instruments to model, simulate and analyze such systems. In the process of developing optimal solutions, suitable heuristics and efficient procedures are some of the challenges which are discussed in this volume.

In recognizing that new teachers often feel disempowered by the subject expertise they bring into teaching, this book not only covers the training standards for NQTs and the Induction Standards, but takes the reader beyond this by fully exploring issues relating to subject knowledge in learning to teach. Divided into three sections the book covers: framing the subject - defining subject knowledge and focusing on questions about science as a school subject teaching the subject - looking at pedagogical, curricular and pupil knowledge science within the professional community - focusing on the place of science within the wider curriculum and the teaching community. This refreshing new book provides stimulating assistance to subject specialists, from new teachers of science in the early years of professional development to those on a PGCE course or in their induction year. It is also suitable for subject leaders with mentor responsibilities and Advanced Skills Teachers undertaking specialist inset and teaching support.

An essential guide to valuation techniques and financial analysis With the collapse of the economy and financial systems, many institutions are reevaluating what they are willing to spend money on. Project valuation is key to both cost effectiveness measures and shareholder value. The purpose of this book is to provide a comprehensive examination of critical capital budgeting topics. Coverage extends from discussing basic concepts, principles, and techniques to their application to increasingly complex, real-world situations. Throughout, the book emphasizes how financially sound capital budgeting facilitates the process of value creation and discusses why various theories make sense and how firms can use them to solve problems and create wealth. Offers a strategic focus on the application of various techniques and approaches related to a firm's overall strategy Provides coverage of international topics based on the premise that managers should view business from a global perspective Emphasizes the importance of using real options Comprised of contributed chapters from both experienced professionals and academics, Capital Budgeting Valuation offers a variety of perspectives and a rich interplay of ideas related to this important financial discipline.

The Public Sector R&D Enterprise combines a primer on how government R&D programs actually work with a sophisticated methodology for prospectively putting a dollar figure on the value of R&D investments before they are made.

This extremely readable book illustrates how mathematics applies directly to different fields of study. Focuses on problems that require physical to mathematical translations, by showing readers how equations have actual meaning in the real world. Covers fourier integrals, and

transform methods, classical PDE problems, the Sturm-Liouville Eigenvalue problem, and much more. For readers interested in partial differential equations.

Biases, blind spots and bonuses (or incentives more broadly) have led to numerous risk management disasters. Risk governance is a potential solution to these problems yet is not always as effective as we would like it to be. One reason for that is the current dearth of risk governance expertise. This book seeks to address this issue, providing: Understanding of the fundamental forces that cause disasters: the biases, blind spots and bonuses. This understanding is drawn from the disciplines of economics/finance and psychology; Explanation of the structures of risk governance and common challenges experienced in their use e.g. board risk committee, risk/compliance function, assurance function, risk appetite statement, risk disclosures; Thorough investigation of risk culture and its importance in risk governance, including the assessment of risk culture; Understanding of the mechanisms of executive compensation and how they link to risk management – one of the most difficult challenges confronting both risk and remuneration committees; Explanation of the risk management process (based on international standards ISO31000), including practical guidance on risk communication, analysis and treatment; Guidance on the management of strategic risk, emphasising the importance of scenario analysis; Application of these principles to cyber risk, climate risk – two pervasive risks affecting almost every organisation; Numerous case studies and examples drawn from various industries around the world; and Discussion of what has been learned about risk governance from the COVID-19 experience. The book is an essential guide for postgraduate students; participants in professional education programs in governance and risk management; directors; senior executives; risk, compliance and assurance professionals as well as conduct and prudential regulators worldwide.

A "hands-on" guide to applied equity analysis and portfolio management From asset allocation to modeling the intrinsic value of a stock, Applied Equity Analysis and Portfolio Management + Online Video Course offers readers a solid foundation in the practice of fundamental analysis using the same tools and techniques as professional investors. Filled with real-world illustrations and hands-on applications, Professor Weigand's learning system takes a rigorous, empirical approach to topics such as analyzing the macro-finance environment, sector rotation, financial analysis and valuation, assessing a company's competitive position, and reporting the performance of a stock portfolio. Unlike typical books on this subject—which feature chapters to read and exercises to complete—this resource allows readers to actively participate in the learning experience by completing writing exercises and manipulating interactive spreadsheets that illustrate the principles being taught. The learning system also features instructional videos that demonstrate how to use the spreadsheet models and excerpts from the author's blog, which are used to depict additional examples of the analysis process. Along the way, it skillfully outlines an effective approach to creating and interpreting outputs typically associated with a top-down money management shop — including a macroeconomic forecasting newsletter, detailed stock research reports, and a portfolio performance attribution analysis. Covers topics including active and passive money management, fundamental analysis and portfolio attribution analysis Companion streaming videos show how to use free online data to create yourown analyses of key economic indicators, individual stocks, and stock portfolios A valuable resource for universities who have applied equity analysis and portfolio management courses Practical and up-to-date, the book is an excellent resource for those with a need for practical investment expertise.

The use of technology and teaching techniques derived from technology is currently a

bourgeoning topic in higher education. Teachers at all levels and types of institutions want to know how these new technologies will affect what happens in and outside of the classroom. Many teachers have already embraced some of these technologies but remain uncertain about their educational efficacy. Other teachers have waited because they are reluctant to try tools or techniques that remain unproven or, as is often the case, lack institutional support. This book is designed to help both groups, so that those with technological expertise can extend their knowledge, while technological novices can "ramp up" at their own pace and for their own purposes. Best Practices for Technology-Enhanced Teaching and Learning brings together expert teacher-scholars who apply and assess technology's impact on traditional, hybrid or blended, or completely on-line courses, relying on technology as a teaching tool for classroom management and interaction (e.g., Blackboard, PowerPoint, student response or "clicker systems," multimedia tools), as well as student-based uses of technology largely independent of instructors (e.g., social networking on popular sites including Facebook and MySpace). Each chapter will address how technological improvements can be connected to assessment initiatives, as is now routinely advocated in psychology and social science education. The book features current scholarship and pedagogy involving innovative technology that impacts on student learning in psychology and related disciplines, focusing also on student reactions to these novel technologies, and proper assessments of how well they promote learning. This text will serve as the standard reference on emerging technologies for undergraduate instructors.

Using real stories with quantitative reasoning skills enmeshed in the story line is a powerful and logical way to teach biology and show its relevance to the lives of future citizens, regardless of whether they are science specialists or laypeople.” —from the introduction to Science Stories You Can Count On This book can make you a marvel of classroom multitasking. First, it helps you achieve a serious goal: to blend 12 areas of general biology with quantitative reasoning in ways that will make your students better at evaluating product claims and news reports. Second, its 51 case studies are a great way to get students engaged in science. Who wouldn’t be glad to skip the lecture and instead delve into investigating cases with titles like these: • “A Can of Bull? Do Energy Drinks Really Provide a Source of Energy?” • “ELVIS Meltdown! Microbiology Concepts of Culture, Growth, and Metabolism” • “The Case of the Druid Dracula” • “As the Worm Turns: Speciation and the Maggot Fly” • “The Dead Zone: Ecology and Oceanography in the Gulf of Mexico” Long-time pioneers in the use of educational case studies, the authors have written two other popular NSTA Press books: Start With a Story (2007) and Science Stories: Using Case Studies to Teach Critical Thinking (2012). Science Stories You Can Count On is easy to use with both biology majors and nonscience students. The cases are clearly written and provide detailed teaching notes and answer keys on a coordinating website. You can count on this book to help you promote scientific and data literacy in ways to prepare students to reason quantitatively and, as the authors write, “to be astute enough to demand to see the evidence.”

This easy-to-understand textbook presents a modern approach to learning numerical methods (or scientific computing), with a unique focus on the modeling and applications of the mathematical content. Emphasis is placed on the need for, and methods of, scientific computing for a range of different types of problems, supplying the evidence

and justification to motivate the reader. Practical guidance on coding the methods is also provided, through simple-to-follow examples using Python. Topics and features: provides an accessible and applications-oriented approach, supported by working Python code for many of the methods; encourages both problem- and project-based learning through extensive examples, exercises, and projects drawn from practical applications; introduces the main concepts in modeling, python programming, number representation, and errors; explains the essential details of numerical calculus, linear, and nonlinear equations, including the multivariable Newton method; discusses interpolation and the numerical solution of differential equations, covering polynomial interpolation, splines, and the Euler, Runge–Kutta, and shooting methods; presents largely self-contained chapters, arranged in a logical order suitable for an introductory course on scientific computing. Undergraduate students embarking on a first course on numerical methods or scientific computing will find this textbook to be an invaluable guide to the field, and to the application of these methods across such varied disciplines as computer science, engineering, mathematics, economics, the physical sciences, and social science.

Explore real-world applications of selected mathematical theory, concepts, and methods Exploring related methods that can be utilized in various fields of practice from science and engineering to business, A First Course in Applied Mathematics details how applied mathematics involves predictions, interpretations, analysis, and mathematical modeling to solve real-world problems. Written at a level that is accessible to readers from a wide range of scientific and engineering fields, the book masterfully blends standard topics with modern areas of application and provides the needed foundation for transitioning to more advanced subjects. The author utilizes MATLAB® to showcase the presented theory and illustrate interesting real-world applications to Google's web page ranking algorithm, image compression, cryptography, chaos, and waste management systems. Additional topics covered include: Linear algebra Ranking web pages Matrix factorizations Least squares Image compression Ordinary differential equations Dynamical systems Mathematical models Throughout the book, theoretical and applications-oriented problems and exercises allow readers to test their comprehension of the presented material. An accompanying website features related MATLAB® code and additional resources. A First Course in Applied Mathematics is an ideal book for mathematics, computer science, and engineering courses at the upper-undergraduate level. The book also serves as a valuable reference for practitioners working with mathematical modeling, computational methods, and the applications of mathematics in their everyday work.