Introduction To R Syllabus University Of Kentucky

This volume is a collection of scholarly papers that explore the complex issues concerning English Studies in the present Indian context. The discussions in this volume range from historical perspectives to classroom-specific pedagogies, from sociological and political hierarchies to the dynamics of intellectual development in the English language environment. Interrogating both policy and practice pertaining to English Studies in the context of Indian society, culture, history, literature and governance, the chapters seek to formulate contemporary perspectives to these debates and envision alternative possibilities. Since the introduction of English to India more than 2 centuries ago, the language has transmuted the very fabric of Indian society, culture, history, literature and governance. The idea of India cannot be conceived in its entirety without taking into consideration the epistemological role that English has played in its formation. The present globalized world order has added dimensions to English Studies which are radically different from those of India's colonial and postcolonial past. It is therefore imperative that the multitudinous shades and shadows of the discipline be re-examined with inputs drawn from the present context. This volume is for scholars and researchers of English literature and

language studies, linguistics, and culture studies, and others interested in exploring new paradigms of engagement with the disciplinary formulation of English Studies in India.

"Princeton University Press published Imai's textbook, Quantitative Social Science: An Introduction, an introduction to quantitative methods and data science for upper level undergrads and graduates in professional programs, in February 2017. What is distinct about the book is how it leads students through a series of applied examples of statistical methods, drawing on real examples from social science research. The original book was prepared with the statistical software R, which is freely available online and has gained in popularity in recent years. But many existing courses in statistics and data sciences, particularly in some subject areas like sociology and law, use STATA, another general purpose package that has been the market leader since the 1980s. We've had several requests for STATA versions of the text as many programs use it by default. This is a "translation" of the original text, keeping all the current pedagogical text but inserting the necessary code and outputs from STATA in their place"-- Designed for an intermediate undergraduate course, Probability and Statistics with R shows students how to solve various statistical problems using both parametric and nonparametric techniques via the open source software R. It

provides numerous real-world examples, carefully explained proofs, end-of-chapter problems, and illuminating graphs

Data science has taken the world by storm. Every field of study and area of business has been affected as people increasingly realize the value of the incredible quantities of data being generated. But to extract value from those data, one needs to be tra

R Programming for Data ScienceLulu.com

"Provides a unified, insightful, modern, and entertaining treatment of analytics. The book covers the science of using data to build models, improve decisions, and ultimately add value to institutions and individuals"--Back cover.

R is the world's most popular language for developing statistical software: Archaeologists use it to track the spread of ancient civilizations, drug companies use it to discover which medications are safe and effective, and actuaries use it to assess financial risks and keep economies running smoothly. The Art of R Programming takes you on a guided tour of software development with R, from basic types and data structures to advanced topics like closures, recursion, and anonymous functions. No statistical knowledge is required, and your programming skills can range from hobbyist to pro. Along the way, you'll learn about functional and object-oriented programming, running mathematical

simulations, and rearranging complex data into simpler, more useful formats. You'll also learn to: –Create artful graphs to visualize complex data sets and functions –Write more efficient code using parallel R and vectorization –Interface R with C/C++ and Python for increased speed or functionality –Find new R packages for text analysis, image manipulation, and more –Squash annoying bugs with advanced debugging techniques Whether you're designing aircraft, forecasting the weather, or you just need to tame your data, The Art of R Programming is your guide to harnessing the power of statistical computing. A surprisingly simple way for students to master any subject--based on one of the world's most popular online courses and the bestselling book A Mind for Numbers A Mind for Numbers and its wildly popular online companion course "Learning How to Learn" have empowered more than two million learners of all ages from around the world to master subjects that they once struggled with. Fans often wish they'd discovered these learning strategies earlier and ask how they can help their kids master these skills as well. Now in this new book for kids and teens, the authors reveal how to make the most of time spent studying. We all have the tools to learn what might not seem to come naturally to us at first--the secret is to understand how the brain works so we can unlock its power. This book explains: • Why sometimes letting your mind wander is an important part of the learning process • How to avoid "rut think" in order to

think outside the box • Why having a poor memory can be a good thing • The value of metaphors in developing understanding • A simple, yet powerful, way to stop procrastinating Filled with illustrations, application questions, and exercises, this book makes learning easy and fun.

From a review of the first edition: "Modern Data Science with R... is rich with examples and is guided by a strong narrative voice. What's more, it presents an organizing framework that makes a convincing argument that data science is a course distinct from applied statistics" (The American Statistician). Modern Data Science with R is a comprehensive data science textbook for undergraduates that incorporates statistical and computational thinking to solve real-world data problems. Rather than focus exclusively on case studies or programming syntax, this book illustrates how statistical programming in the state-of-the-art R/RStudio computing environment can be leveraged to extract meaningful information from a variety of data in the service of addressing compelling questions. The second edition is updated to reflect the growing influence of the tidyverse set of packages. All code in the book has been revised and styled to be more readable and easier to understand. New functionality from packages like sf, purrr, tidymodels, and tidytext is now integrated into the text. All chapters have been revised, and several have been split, re-organized, or re-imagined to meet the shifting landscape of best practice.

Computational statistics and statistical computing are two areas that employ

computational, graphical, and numerical approaches to solve statistical problems, making the versatile R language an ideal computing environment for these fields. One of the first books on these topics to feature R, Statistical Computing with R covers the traditiona

R is a language and environment for data analysis and graphics. It may be considered an implementation of S, an award-winning language initially - veloped at Bell Laboratories since the late 1970s. The R project was initiated by Robert Gentleman and Ross Ihaka at the University of Auckland, New Zealand, in the early 1990s, and has been developed by an international team since mid-1997. Historically, econometricians have favored other computing environments, some of which have fallen by the wayside, and also a variety of packages with canned routines. We believe that R has great potential in econometrics, both for research and for teaching. There are at least three reasons for this: (1) R is mostly platform independent and runs on Microsoft Windows, the Mac family of operating systems, and various ?avors of Unix/Linux, and also on some more exotic platforms. (2) R is free software that can be downloaded and installed at no cost from a family of mirror sites around the globe, the Comprehensive R Archive Network (CRAN); hence students can easily install it on their own machines. (3) R is open-source software, so that the full source code is available and can be inspected to understand what it really does, learn from it, and modify and extend it. We also like to think that platform independence and the open-source philosophy make R

an ideal environment for reproducible econometric research.

This book describes an alternative way to teach Creative Writing, one that replaces the silent writer taking criticism and advice from the teacher-led workshop with an active writer who reflects upon and publically questions the work-in-progress in order to solicit response, from a writers' group as well as from the teacher. Both accompany the writer, first as readers and fellow writers, only later as critics. Because writers ask, they listen, and dialogues with responders become an inner dialogue that guides later writing and revision. But when teachers accompany writers, teaching CW becomes even more a negotiation of the personal because this teacher who is listener and mentor is also a model for some students of the writer and even the person they would like to become - and still the Authority who gives the grades.

Summary R in Action, Second Edition presents both the R language and the examples that make it so useful for business developers. Focusing on practical solutions, the book offers a crash course in statistics and covers elegant methods for dealing with messy and incomplete data that are difficult to analyze using traditional methods. You'll also master R's extensive graphical capabilities for exploring and presenting data visually. And this expanded second edition includes new chapters on time series analysis, cluster analysis, and classification methodologies, including decision trees, random forests, and support vector machines. Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. About the

Technology Business pros and researchers thrive on data, and R speaks the language of data analysis. R is a powerful programming language for statistical computing. Unlike general-purpose tools, R provides thousands of modules for solving just about any data-crunching or presentation challenge you're likely to face. R runs on all important platforms and is used by thousands of major corporations and institutions worldwide. About the Book R in Action, Second Edition teaches you how to use the R language by presenting examples relevant to scientific, technical, and business developers. Focusing on practical solutions, the book offers a crash course in statistics, including elegant methods for dealing with messy and incomplete data. You'll also master R's extensive graphical capabilities for exploring and presenting data visually. And this expanded second edition includes new chapters on forecasting, data mining, and dynamic report writing. What's Inside Complete R language tutorial Using R to manage, analyze, and visualize data Techniques for debugging programs and creating packages OOP in R Over 160 graphs About the Author Dr. Rob Kabacoff is a seasoned researcher and teacher who specializes in data analysis. He also maintains the popular Quick-R website at statmethods.net. Table of Contents PART 1 GETTING STARTED Introduction to R Creating a dataset Getting started with graphs Basic data management Advanced data management PART 2 BASIC METHODS Basic graphs Basic statistics PART 3 INTERMEDIATE METHODS Regression Analysis of variance Power analysis Intermediate graphs Resampling statistics and bootstrapping PART 4

ADVANCED METHODS Generalized linear models Principal components and factor analysis Time series Cluster analysis Classification Advanced methods for missing data PART 5 EXPANDING YOUR SKILLS Advanced graphics with ggplot2 Advanced programming Creating a package Creating dynamic reports Advanced graphics with the lattice package available online only from manning.com/kabacoff2

The IUCN Environmental Law Programme (ELP) is proud to present this compilation of thought pieces from experts belonging both to the IUCN Commission on Environmental Law (CEL) and the IUCN Environmental Law Centre, both part of the ELP -- the world's leading environmental law network. The strong involvement of CEL members from North and Southeast Asia and Oceania in the symposium that led to this publication, and in its preparation, is a particularly pleasing feature of this initiative.While we continue to strive towards the improvement of the first generation of environmental laws and their effective implementation, our rapidly changing world also requires us to excite some critical thinking about the second generation of environmental laws. The symposium was an attempt to fuel discussion on what we have achieved with the first generation, what we need to do for the second generation, and how we can bridge these two generations. Through this book we have attempted to capture the provoking thoughts raised during the symposium, which recent developments have validated to be pressing concerns for the world.The articles cover a broad range of issues that are of interest, especially to the Japanese audience for which the symposium was designed,

but also to the broader regional and international community. They examine the issues from the national, regional, and international perspectives, and focus not only on State action, but also on the contributions of a regional financial institution, the Asian Development Bank, which has been a staunch supporter of the ELP's capacity building programme in the Asian and Pacific region.

Providing a much-needed bridge between elementary statistics courses and advanced research methods courses, Understanding Advanced Statistical Methods helps students grasp the fundamental assumptions and machinery behind sophisticated statistical topics, such as logistic regression, maximum likelihood, bootstrapping, nonparametrics, and Bayesian methods. The book teaches students how to properly model, think critically, and design their own studies to avoid common errors. It leads them to think differently not only about math and statistics but also about general research and the scientific method. With a focus on statistical models as producers of data, the book enables students to more easily understand the machinery of advanced statistics. It also downplays the "population" interpretation of statistical models and presents Bayesian methods before frequentist ones. Requiring no prior calculus experience, the text employs a "just-in-time" approach that introduces mathematical topics, including calculus, where needed. Formulas throughout the

text are used to explain why calculus and probability are essential in statistical modeling. The authors also intuitively explain the theory and logic behind real data analysis, incorporating a range of application examples from the social, economic, biological, medical, physical, and engineering sciences. Enabling your students to answer the why behind statistical methods, this text teaches them how to successfully draw conclusions when the premises are flawed. It empowers them to use advanced statistical methods with confidence and develop their own statistical recipes. Ancillary materials are available on the book's website.

Named a Notable Book in the 21st Annual Best of Computing list by the ACM! Robert Sedgewick and Kevin Wayne's Computer Science: An Interdisciplinary Approach is the ideal modern introduction to computer science with Java programming for both students and professionals. Taking a broad, applications-based approach, Sedgewick and Wayne teach through important examples from science, mathematics, engineering, finance, and commercial computing. The book demystifies computation, explains its intellectual underpinnings, and covers the essential elements of programming and computational problem solving in today's environments. The authors begin by introducing basic programming elements such as variables, conditionals, loops, arrays, and I/O. Next, they turn

to functions, introducing key modular programming concepts, including components and reuse. They present a modern introduction to object-oriented programming, covering current programming paradigms and approaches to data abstraction. Building on this foundation, Sedgewick and Wayne widen their focus to the broader discipline of computer science. They introduce classical sorting and searching algorithms, fundamental data structures and their application, and scientific techniques for assessing an implementation's performance. Using abstract models, readers learn to answer basic questions about computation, gaining insight for practical application. Finally, the authors show how machine architecture links the theory of computing to real computers, and to the field's history and evolution. For each concept, the authors present all the information readers need to build confidence, together with examples that solve intriguing problems. Each chapter contains question-and-answer sections, self-study drills, and challenging problems that demand creative solutions. Companion web site (introcs.cs.princeton.edu/java) contains Extensive supplementary information, including suggested approaches to programming assignments, checklists, and FAQs Graphics and sound libraries Links to program code and test data Solutions to selected exercises Chapter summaries Detailed instructions for installing a Java programming environment Detailed problem sets and projects

Companion 20-part series of video lectures is available at informit.com/title/9780134493831

Emphasizing concepts rather than recipes, An Introduction to Statistical Inference and Its Applications with R provides a clear exposition of the methods of statistical inference for students who are comfortable with mathematical notation. Numerous examples, case studies, and exercises are included. R is used to simplify computation, create figures

A practical approach to using regression and computation to solve real-world problems of estimation, prediction, and causal inference.

Python for Everybody is designed to introduce students to programming and software development through the lens of exploring data. You can think of the Python programming language as your tool to solve data problems that are beyond the capability of a spreadsheet.Python is an easy to use and easy to learn programming language that is freely available on Macintosh, Windows, or Linux computers. So once you learn Python you can use it for the rest of your career without needing to purchase any software.This book uses the Python 3 language. The earlier Python 2 version of this book is titled "Python for Informatics: Exploring Information".There are free downloadable electronic copies of this book in various formats and supporting materials for the book at

www.pythonlearn.com. The course materials are available to you under a Creative Commons License so you can adapt them to teach your own Python course.

"This book describes the process of analyzing data. The authors have extensive experience both managing data analysts and conducting their own data analyses, and this book is a distillation of their experience in a format that is applicable to both practitioners and managers in data science."--Leanpub.com.

An introductory textbook offering a low barrier entry to data science; the hands-on approach will appeal to students from a range of disciplines.

Collecting, analyzing, and extracting valuable information froma large amount of data requires easily accessible, robust,computational and analytical tools. Data Mining and BusinessAnalytics with R utilizes the open source software R for theanalysis, exploration, and simplification of large high-dimensionaldata sets. As a result, readers are provided with the neededguidance to model and interpret complicated data and become adeptat building powerful models for prediction and classification. Highlighting both underlying concepts and practicalcomputational skills, Data Mining and Business Analytics withR begins with coverage of standard linear regression and theimportance of parsimony in statistical modeling. The book includesimportant topics such as penalty-based variable selection (LASSO);logistic regression; regression and classification trees;clustering; principal components and partial least squares; and theanalysis of text and network data. In addition, the bookpresents: • A thorough

discussion and extensive demonstration of thetheory behind the most useful data mining tools • Illustrations of how to use the outlined concepts inreal-world situations • Readily available additional data sets and related Rcode allowing readers to apply their own analyses to the discussedmaterials • Numerous exercises to help readers with computing skillsand deepen their understanding of the material Data Mining and Business Analytics with R is an excellentgraduate-level textbook for courses on data mining and businessanalytics. The book is also a valuable reference for practitionerswho collect and analyze data in the fields of finance, operationsmanagement, marketing, and the information sciences.

To write an accomplished program in the DATA step of SAS®, programmers must understand programming logic and know how to implement and even create their own programming algorithm. Handbook of SAS® DATA Step Programming shows readers how best to manage and manipulate data by using the DATA step. The book helps novices avoid common mistakes resulting from a lack of understanding fundamental and unique SAS programming concepts. It explains that learning syntax does not solve all problems; rather, a thorough comprehension of SAS processing is needed for successful programming. The author also guides readers through a programming task. In most of the examples, the author first presents strategies and steps for solving the problem, then offers a solution, and finally gives a more detailed explanation of the solution. Understanding the DATA steps, particularly the program data vector (PDV), is critical to proper data manipulation and management in SAS. This book helps SAS programmers thoroughly grasp the concept of DATA step processing and write accurate programs in the DATA step. Numerous supporting materials, including data sets and programs used in the text, are available on the book's CRC Press web page.

This is the second edition of Wil van der Aalst's seminal book on process mining, which now discusses the field also in the broader context of data science and big data approaches. It includes several additions and updates, e.g. on inductive mining techniques, the notion of alignments, a considerably expanded section on software tools and a completely new chapter of process mining in the large. It is self-contained, while at the same time covering the entire process-mining spectrum from process discovery to predictive analytics. After a general introduction to data science and process mining in Part I, Part II provides the basics of business process modeling and data mining necessary to understand the remainder of the book. Next, Part III focuses on process discovery as the most important process mining task, while Part IV moves beyond discovering the control flow of processes, highlighting conformance checking, and organizational and time perspectives. Part V offers a guide to successfully applying process mining in practice, including an introduction to the widely used open-source tool ProM and several commercial products. Lastly, Part VI takes a step back, reflecting on the material presented and the key open challenges. Overall, this book provides a comprehensive overview of the state of the art in process mining. It is intended for business process analysts, business consultants, process managers, graduate students, and BPM researchers.

Introductory Statistics is designed for the one-semester, introduction to statistics course and is geared toward students majoring in fields other than math or engineering. This text assumes students have been exposed to intermediate algebra, and it focuses on the applications of statistical knowledge rather than the theory behind it. The foundation of this textbook is Collaborative Statistics, by Barbara Illowsky and Susan Dean. Additional topics, examples, and

ample opportunities for practice have been added to each chapter. The development choices for this textbook were made with the guidance of many faculty members who are deeply involved in teaching this course. These choices led to innovations in art, terminology, and practical applications, all with a goal of increasing relevance and accessibility for students. We strove to make the discipline meaningful, so that students can draw from it a working knowledge that will enrich their future studies and help them make sense of the world around them. Coverage and Scope Chapter 1 Sampling and Data Chapter 2 Descriptive Statistics Chapter 3 Probability Topics Chapter 4 Discrete Random Variables Chapter 5 Continuous Random Variables Chapter 6 The Normal Distribution Chapter 7 The Central Limit Theorem Chapter 8 Confidence Intervals Chapter 9 Hypothesis Testing with One Sample Chapter 10 Hypothesis Testing with Two Samples Chapter 11 The Chi-Square Distribution Chapter 12 Linear Regression and Correlation Chapter 13 F Distribution and One-Way ANOVA During the past decade there has been an explosion in computation and information technology. With it have come vast amounts of data in a variety of fields such as medicine, biology, finance, and marketing. The challenge of understanding these data has led to the development of new tools in the field of statistics, and spawned new areas such as data mining, machine learning, and bioinformatics. Many of these tools have common underpinnings but are often expressed with different terminology. This book describes the important ideas in these areas in a common conceptual framework. While the approach is statistical, the emphasis is on concepts rather than mathematics. Many examples are given, with a liberal use of color graphics. It should be a valuable resource for statisticians and anyone interested in data mining in science or industry. The book's coverage is broad, from

supervised learning (prediction) to unsupervised learning. The many topics include neural networks, support vector machines, classification trees and boosting---the first comprehensive treatment of this topic in any book. This major new edition features many topics not covered in the original, including graphical models, random forests, ensemble methods, least angle regression & path algorithms for the lasso, non-negative matrix factorization, and spectral clustering. There is also a chapter on methods for "wide" data (p bigger than n), including multiple testing and false discovery rates. Trevor Hastie, Robert Tibshirani, and Jerome Friedman are professors of statistics at Stanford University. They are prominent researchers in this area: Hastie and Tibshirani developed generalized additive models and wrote a popular book of that title. Hastie co-developed much of the statistical modeling software and environment in R/S-PLUS and invented principal curves and surfaces. Tibshirani proposed the lasso and is co-author of the very successful An Introduction to the Bootstrap. Friedman is the co-inventor of many data-mining tools including CART, MARS, projection pursuit and gradient boosting.

This book draws on both traditional and emerging fields of study to consider consider what a grounded definition of quantitative and qualitative research in the Digital Humanities (DH) might mean; which areas DH can fruitfully draw on in order to foster and develop that understanding; where we can see those methods applied; and what the future directions of research methods in Digital Humanities might look like. Schuster and Dunn map a wide-ranging DH research methodology by drawing on both 'traditional' fields of DH study such as text, historical sources, museums and manuscripts, and innovative areas in research production, such as knowledge and technology, digital culture and society and history of

network technologies. Featuring global contributions from scholars in the United Kingdom, the United States, Europe and Australia, this book draws together a range of disciplinary perspectives to explore the exciting developments offered by this fast-evolving field. Routledge International Handbook of Research Methods in Digital Humanities is essential reading for anyone who teaches, researches or studies Digital Humanities or related subjects.

This book provides a showcase for "best practices" in teaching statistics and research methods in two- and four-year colleges and universities. A helpful resource for teaching introductory, intermediate, and advanced statistics and/or methods, the book features coverage of: ways to integrate these courses; how to promote ethical conduct; how to create writing intensive programs; novel tools and activities to get students involved; strategies for teaching online courses and computer applications; guidance on how to create and maintain helpful Web resources; assessment advice to help demonstrate that students are learning; and tips on linking diversity to research methodology. This book appeals to veteran and novice educators and graduate students who teach research methods and/or statistics in psychology and other behavioral sciences and serves as an excellent resource in related faculty workshops. A CD with activities that readers can customize is included.

An Introduction to Statistical Learning provides an accessible overview of the field of statistical learning, an essential toolset for making sense of the vast and complex data sets that have emerged in fields ranging from biology to finance to marketing to astrophysics in the past twenty years. This book presents some of the most important modeling and prediction techniques, along with relevant applications. Topics include

linear regression, classification, resampling methods, shrinkage approaches, tree-based methods, support vector machines, clustering, and more. Color graphics and real-world examples are used to illustrate the methods presented. Since the goal of this textbook is to facilitate the use of these statistical learning techniques by practitioners in science, industry, and other fields, each chapter contains a tutorial on implementing the analyses and methods presented in R, an extremely popular open source statistical software platform. Two of the authors co-wrote The Elements of Statistical Learning (Hastie, Tibshirani and Friedman, 2nd edition 2009), a popular reference book for statistics and machine learning researchers. An Introduction to Statistical Learning covers many of the same topics, but at a level accessible to a much broader audience. This book is targeted at statisticians and non-statisticians alike who wish to use cutting-edge statistical learning techniques to analyze their data. The text assumes only a previous course in linear regression and no knowledge of matrix algebra.

This book is Part I of the fourth edition of Robert Sedgewick and Kevin Wayne's Algorithms , the leading textbook on algorithms today, widely used in colleges and universities worldwide. Part I contains Chapters 1 through 3 of the book. The fourth edition of Algorithms surveys the most important computer algorithms currently in use and provides a full treatment of data structures and algorithms for sorting, searching, graph processing, and string processing -- including fifty algorithms every programmer should know. In this edition, new Java implementations are written in an accessible

modular programming style, where all of the code is exposed to the reader and ready to use. The algorithms in this book represent a body of knowledge developed over the last 50 years that has become indispensable, not just for professional programmers and computer science students but for any student with interests in science, mathematics, and engineering, not to mention students who use computation in the liberal arts. The companion web site, algs4.cs.princeton.edu contains An online synopsis Full Java implementations Test data Exercises and answers Dynamic visualizations Lecture slides Programming assignments with checklists Links to related material The MOOC related to this book is accessible via the "Online Course" link at algs4.cs.princeton.edu. The course offers more than 100 video lecture segments that are integrated with the text, extensive online assessments, and the large-scale discussion forums that have proven so valuable. Offered each fall and spring, this course regularly attracts tens of thousands of registrants. Robert Sedgewick and Kevin Wayne are developing a modern approach to disseminating knowledge that fully embraces technology, enabling people all around the world to discover new ways of learning and teaching. By integrating their textbook, online content, and MOOC, all at the state of the art, they have built a unique resource that greatly expands the breadth and depth of the educational experience. This book explores theories and pedagogies in the L2 classroom that have led to an understanding of how non-native languages are taught and learned. Featuring a diverse set of perspectives from researchers and language educators from around the

globe, this book highlights important theoretical and practical underpinnings of the L2 classroom—discussions on what has worked and why. Some examples of these topics include: online and nonverbal communication, peace literacy, learning behaviors, high-impact practices, pragmatic awareness, study abroad, implicit and explicit teaching, motivation, and more. One mission of this book is to appreciate a diverse array of L2 teaching practices with sound theoretical underpinnings and universal implications for L2 classrooms. The chapter contributions are the result of an open call for studies that highlight practical innovative approaches in L2 teaching and learning and expand the avenues of exploration available within their theoretical frameworks. More specifically, the call for proposals sought to gather a diverse set of perspectives from researchers and language educators from various parts of the world in order to provide practical and thought-provoking insight on innovative approaches to L2 teaching. As such, the studies in this book all share a common goal that demonstrates the applicability of L2 teaching practices across languages, cultures, and regions. The book is intended to act as a valuable reference for language educators, practitioners, specialists, and anyone studying or wishing to gain an overview of successful teaching practices and learning nuances in the L2 classroom that cross all languages, cultures, and regions. Statistical Computation for Programmers, Scientists, Quants, Excel Users, and Other Professionals Using the open source R language, you can build powerful statistical models to answer many of your most challenging questions. R has traditionally been

difficult for non-statisticians to learn, and most R books assume far too much knowledge to be of help. R for Everyone, Second Edition, is the solution. Drawing on his unsurpassed experience teaching new users, professional data scientist Jared P. Lander has written the perfect tutorial for anyone new to statistical programming and modeling. Organized to make learning easy and intuitive, this guide focuses on the 20 percent of R functionality you'll need to accomplish 80 percent of modern data tasks. Lander's self-contained chapters start with the absolute basics, offering extensive hands-on practice and sample code. You'll download and install R; navigate and use the R environment; master basic program control, data import, manipulation, and visualization; and walk through several essential tests. Then, building on this foundation, you'll construct several complete models, both linear and nonlinear, and use some data mining techniques. After all this you'll make your code reproducible with LaTeX, RMarkdown, and Shiny. By the time you're done, you won't just know how to write R programs, you'll be ready to tackle the statistical problems you care about most. Coverage includes Explore R, RStudio, and R packages Use R for math: variable types, vectors, calling functions, and more Exploit data structures, including data.frames, matrices, and lists Read many different types of data Create attractive, intuitive statistical graphics Write user-defined functions Control program flow with if, ifelse, and complex checks Improve program efficiency with group manipulations Combine and reshape multiple datasets Manipulate strings using R's facilities and

regular expressions Create normal, binomial, and Poisson probability distributions Build linear, generalized linear, and nonlinear models Program basic statistics: mean, standard deviation, and t-tests Train machine learning models Assess the quality of models and variable selection Prevent overfitting and perform variable selection, using the Elastic Net and Bayesian methods Analyze univariate and multivariate time series data Group data via K-means and hierarchical clustering Prepare reports, slideshows, and web pages with knitr Display interactive data with RMarkdown and htmlwidgets Implement dashboards with Shiny Build reusable R packages with devtools and Rcpp Register your product at informit.com/register for convenient access to downloads, updates, and corrections as they become available.

A Guide to Teaching Introductory Psychology focuses on the critical aspects of teaching introductory psychology to undergraduate students. It includes ideas, tips, and strategies for effectively teaching this course and provides useful answers to commonly asked questions. A concise and accessible guide to teaching introductory courses in Psychology Begins with an orienting history of the course· Evaluates current trends in teaching and offers suggestions for developing personal techniques Addresses a number of relevant issues, including how to teach difficult topics; linking course content to everyday experience; developing and using class presentations, lectures, and active learning ideas; and increasing interest in course topics Supported by a website that provides links to useful websites and handouts that instructors can use in their classes

(http://www.blackwellpublishing.com/teachpsychscience/lucas/)
Roxy Peck, Chris Olsen, and Jay Devore's new edition uses real data and attention-grabbing examples to introduce students to the study of statistics and data analysis. Traditional in structure yet modern in approach, this text guides students through an intuition-based learning process that stresses interpretation and communication of statistical information. Simple notation--including frequent substitution of words for symbols--helps students grasp concepts and cement their comprehension. Hands-on activities and interactive applets allow students to practice statistics firsthand. INTRODUCTION TO STATISTICS AND DATA ANALYSIS includes updated coverage of most major technologies, as well as expanded coverage of probability. Important Notice: Media content referenced within the product description or the product text may not be available in the ebook version.