SAS® Business Knowledge Series

January–June 2014

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What We Offer

Classroom Training
Our instructors deliver real-world knowledge, cutting-edge techniques, and useful tips by combining expertly designed lectures and software demonstrations, question-and-answer sessions and hands-on computer workshops. Join us for an interactive learning experience delivered at a SAS training facility.

Live Web Classroom Training
Bring instructor-led training directly to your desktop while accommodating your busy schedule. Using a Web browser and your telephone, interact with our instructor, who will guide your learning and answer your questions in real time.

On-Site Training
The same quality content and instruction as our classroom training delivered at your convenience at your location. Ask questions and generate discussion unique to your organization’s needs in a private setting, and eliminate staff travel time and expenses.

e-Learning
New to our program this year are Recorded Courses. Offering comprehensive content, demos and exercises, these are pre-recorded courses of instructors presenting courses that are not available in any other training format.

SAS Business Knowledge Series

Looking for real-world solutions from experts you can trust?
I encourage you to join thousands of fellow professionals worldwide who have profited from the dynamic training offered through our popular Business Knowledge Series. For 13 years, this series has addressed critical issues surrounding business analytics in a variety of fields, including finance, healthcare, insurance and retail. With more than 40 classes delivering valuable information on business practices, concepts, methodology and techniques, there’s an expert available to help you in your industry.

Larry Stewart
Vice President of SAS Education
Data Cleaning Techniques
Ron Cody, author and retired professor at the Robert Wood Johnson Medical School; or Mark Jordan, Technical Training Consultant, Education Division, SAS

Learn techniques involving DATA step programming and other SAS procedures for finding errors in raw data or SAS data sets. Novice and veteran SAS programmers alike will also garner new and valuable programming tips and tricks.

In addition to course materials provided, you will receive a copy of Cody’s book.

Healthcare Data and the SAS® System
Craig Dickstein, co-author of Health Care Data and the SAS® System

Survey the origin, management and use of administrative health care data with an emphasis on the use of SAS software tools. Get acquainted with the providers, payers and users of the US health care system.

For a hands-on programming supplement, pair this course with Healthcare Data and the SAS® System: Hands-On Programming Workshop. The two courses are offered on contiguous days.

In addition to course materials provided, you will receive a copy of Dickstein’s book.

SAS® Functions by Example
Ron Cody, author and retired professor at the Robert Wood Johnson Medical School; or Mark Jordan, Technical Consultant, Education Division, SAS

Uncover useful little-known functions that can solve everyday problems quickly and efficiently. This course is ideal for anyone who programs in Base SAS, especially DATA step programming.

In addition to course materials provided, you will receive a copy of Cody’s book.

Statistical Analysis

Fitting Tobit and Other Limited Dependent Variable Models
Mike Patetta, Analytical Training Consultant, Education Division, SAS

Learn how to fit Tobit models, truncated models and sample selection models in the LIM procedure. Tobit models are censored regression models used when the dependent variable has a limited distribution because of censoring.

Imputation Techniques in SAS®
Patricia Berglund, Senior Research Associate, Survey Methodology Program, Institute for Social Research, University of Michigan

If you’re relatively new to the use of multiple imputation tools in SAS, this is a great opportunity to get acquainted with MI and MIANALYZE procedures for multiple imputation and subsequent analyses with imputed data sets.

Multilevel Modeling of Hierarchical and Longitudinal Data Using SAS®
Catherine Truxillo, PhD, Manager, Analytical Education; or Chris Daman, Analytical Training Consultants, Education Division, SAS; or Stephen Mistler, Analytical Consultant

Learn to identify complex and dynamic relations within multilevel data to inform a variety of decision-making needs. Gain a conceptual understanding of multilevel linear models (MLM), multilevel nonlinear models (MNLM) and their appropriate use in a variety of settings.
Multiple Comparisons and Multiple Tests Using SAS®
Peter Westfall, PhD, Professor of Statistics, Texas Tech University
Learn how SAS is used for multiple comparisons in general applications, including studies with multiple outcome measures, studies with multiple group comparisons, and in combination.

Propensity Score Matching, Adjustment, and Randomized Experiments
Howard S. Friedman, PhD, Professor, Columbia University, and Partner, DataMed Solutions LLC; or Paul Thurman, Professor, Columbia University
Learn to determine through testing whether the results of a program can be attributed to a given cause. For example, was the increase in customer sales due to mailing of sales fliers? Was the health improvement due to the new medication? What conclusion can be drawn? Examine randomized controlled experiments and observational studies that require adjustment to reduce bias by using propensity score analysis through either propensity score matching or propensity score adjustment.

Robust Regression Techniques in SAS/STAT®
Mike Patetta, Analytical Training Consultant, Education Division, SAS
Analysts, statisticians, modelers and other professionals experienced in regression analysis will learn available procedures in SAS/STAT® software for robust regression and nonparametric regression techniques.

NEW! Structural Equation Modeling Using SAS®
Catherine Truxillo, PhD, Manager, Analytical Education, Education Division, SAS; or Stephen Mistler, Analytical Consultant
Experienced statistical analysts will get acquainted with structural equation modeling (SEM), a technique that combines elements of traditional multivariate models, such as regression analysis, factor analysis and simultaneous equation modeling, as well as the new PATH language in the CALIS procedure in SAS/STAT® software. The course also includes a separate e-Learning course that introduces the SAS® Structural Equation Modeling for JMP® interface for performing analysis of structural equation models with an easy-to-use diagram-creating interface.

Advanced Analytics for the Modern Business Analyst
Catherine Truxillo, PhD, Manager, Analytical Education; or Jeffrey Thompson, PhD; or Peter Christie; or Marc Huber, Analytical Training Consultants, Education Division, SAS
Gain the skills required to succeed in today's highly analytical and data-driven economy. Learn the basics of data management, decision trees, logistic regression, segmentation, design of experiments and forecasting. The course combines scheduled, instructor-led Live Web sessions with independent activities such as reading assignments and hands-on exercises for a highly engaging learning experience.

Applying Survival Analysis to Business Time-to-Event Problems
Gordon Linoff, co-founder and Principal Consultant, Data Miners Inc.
Get acquainted with survival analysis in the context of business data mining. The focus is on understanding customer behaviors that have a time-to-event component using SAS® Enterprise Guide®.

Getting the Most Out of Testing in Direct/Internet Marketing
Goutam Chakraborty, PhD, Professor of Marketing, Oklahoma State University
Gain important insights into one of the most important advantages that direct marketers have over traditional marketers: their ability to test and fine-tune almost any aspect of their marketing mix.
**Econometrics and Forecasting**

**Advanced Topics in Applied Econometrics**
Oral Capps Jr., PhD, Executive Professor and Co-Director of the Agribusiness Food and Consumer Economics Research Center and holder of the Southwest Dairy Marketing Endowed Chair in the Department of Agricultural Economics, Texas A&M University

Better understand the economic/business landscape and improve your ability to make sound forecasts. This sequel to Introduction to Applied Econometrics focuses on intermediate/advanced topics in working with econometric models. Through applications, gain knowledge of the practical elements of applied econometric analysis. The overall aims are to sharpen the quantitative, statistical and analytical skills in dealing with problems and issues related to business and economics as well as to improve communication skills in reporting findings to decision makers.

**Electric Load Forecasting: Fundamentals and Best Practices**
Tao Hong, PhD, Assistant Professor and NCEMC Faculty Fellow, University of North Carolina, Charlotte

Using hands-on exercises and examples from the power industry, learn the statistical and practical aspects of electric load forecasting. Prepare and sharpen your statistical and analytical skills in dealing with real-world load forecasting problems, and improve your ability to design, develop, document and report sound and defensible load forecasts.

**Forecast Value Added Analysis**
Michael Gilliland, Product Marketing Manager, SAS; or Chip Wells, PhD, Analytical Training Consultant, Education Division, SAS

Want to improve your forecasts while using fewer resources and less management time? Forecast value added (FVA) is the change in a forecasting performance metric that can be attributed to a particular step or participant in the forecasting process. Learn to conduct FVA analysis to identify and eliminate waste and inefficiencies in your forecasting process.

**Introduction to Applied Econometrics**
Oral Capps Jr., PhD, Executive Professor and Co-Director of the Agribusiness Food and Consumer Economics Research Center and holder of the Southwest Dairy Marketing Endowed Chair in the Department of Agricultural Economics, Texas A&M University

This course focuses on the development and use of single-equation econometric models that enable a better understanding of the economic/business landscape and improve the ability to make sound economic/business forecasts.

**Stationarity Testing and Other Time Series Topics**
Dave Dickey, PhD, Professor of Statistics, North Carolina State University

Explore a basic issue in time series modeling and forecasting: whether a time series is nonstationary. One of the most common unit root tests for addressing this issue, the Dickey-Fuller test, is discussed.

**Data Mining**

**Advanced Analytics for Customer Intelligence Using SAS**
Bart Baesens, PhD; or Christophe Mues, PhD, Assistant Professors, School of Management, University of Southampton (United Kingdom)

Learn how to adopt state-of-the-art data mining techniques for complex customer intelligence applications. This advanced, highly interactive course offers a sound mix of both theoretical and technical insights as well as practical implementation details, illustrated by several real-life cases.

**Analytics: Putting It All to Work**
Bart Baesens, PhD; or Christophe Mues, PhD, Assistant Professors, School of Management, University of Southampton (United Kingdom); or Catherine Truxillo, PhD, Manager, Analytical Education; or Chip Wells, PhD, Analytical Training Consultant, Education Division, SAS

Learn how to put analytical tools and concepts to work in a practical business setting. Business applications covered include credit scoring and risk modeling, customer retention and response modeling, market basket analysis and cross-selling, customer lifetime value modeling, and Web intelligence and social network analytics.
Customer Segmentation Using SAS® Enterprise Miner™
Goutam Chakraborty, PhD, Professor of Marketing and founder of the SAS and Oklahoma State University Data Mining Certificate Program

Gain both theoretical knowledge and practical skills in this hands-on course covering segmentation analysis in the context of business data mining. Topics include the theory of segmentation, as well as four main analytic tools for segmentation: hierarchical clustering, k-means clustering, the RFM cell method, and the SOM/Kohonen method.

Data Mining: Principles and Best Practices
John Elder IV, PhD, President; or Gerhard Pilcher, Senior Scientist; or Mike Thurber, Senior Data Miner, Elder Research Inc.

Tap into the power and potential of data mining by learning how to reveal useful patterns and trends from data. Gain valuable, practical guidance on how to properly set up experiments and interpret results with confidence. Learn from examples drawn from real-world experiences in areas such as credit scoring, fraud detection, biology, investments and cross-selling.

In addition to course materials provided, you will receive a copy of Elder’s book.

Data Mining Techniques: Theory and Practice
Gordon Linoff, author, co-founder and Principal Consultant, Data Miners Inc.

Discover a data mining methodology that is a superset to the SAS SEMA methodology around which SAS Enterprise Miner is organized. Explore a wide range of data mining algorithms and both theoretical knowledge and practical skills. Learn each step of a data mining project, beginning with problem definition and data selection and continuing through data exploration, data transformation, sampling, portioning, modeling and assessment.

In addition to course materials provided, you will receive a copy of Linoff’s book.

Exploratory Analysis for Large and Complex Programs Using SAS® Enterprise Miner™
Jeff Zeanah, President, Z Solutions Inc.

Gain insights into virtually any type of exploratory data analysis problem. There is a focus on fraud detection, with the recognition that the core principles of modeling to solve fraud detection are the basis of all exploratory data analysis. Analytical methods used in the course include decision trees, logistic regression, neural networks, link analysis and social network analysis. Additionally, you’ll receive practical advice on presenting complex findings to an audience.

Net Lift Models: Optimizing the Impact of Your Marketing Efforts
Kim Larsen, Vice President, Analytical Insights, Market Share Partners

Prepare to build net lift models that optimize the incremental impact of marketing campaigns. Learn to identify good net lift predictive variables, build net models with logistic regression, Naive Bayes models and KNN classifiers, and evaluate and deploy net models.

Survival Data Mining: Predictive Hazard Modeling for Customer History Data
Robert M. Lucas, PhD, Director, Analytical Education, SAS; or Mike Patetta, Analytical Training Consultant, Education Division, SAS

Identify the benefits and pitfalls of using survival analysis for business intelligence. Review both theoretical justification of various survival data mining methods and their practical implementation using SAS software.
Text Analytics

NEW! Brand Management Using SAS® Text Miner
Joseph Johnson, PhD, University of Miami

Learn how to use consumer-generated content in social media as a tool for brand management. Develop the necessary skills needed to implement brand strategies based on consumers’ view of a brand. Lectures, hands-on exercises, cases and discussions demonstrate key practices, including developing brand association and positioning maps for use in developing marketing strategy and managing brands over time.

NEW! Text Analytics and Sentiment Mining Using SAS®
Goutam Chakraborty, PhD, Professor of Marketing and founder of the SAS and Oklahoma State University Data Mining Certificate Program

Take a comprehensive look at how to organize, manage and analyze unstructured textual data, such as call center logs, emails, Web documents, blogs, tweets, and customer comments and reviews, for extracting insightful information from large collections of documents. Learn how to use such insights for improving business operations and performance.

In addition to course materials provided, you will receive a copy of Chakraborty’s book.

JMP® Statistical Analysis

NEW! Analyzing Marketing Data: Going Beyond Tabs and Bar Charts with JMP®
Walter R. Paczkowski, PhD, Data Analytics Corp.

Most market research studies and their subsequent reports rely on simple cross-tabulations and overworked pie and bar charts. What is needed for making powerful marketing decisions is actually buried in the data, not in “the tabs.” Learn how to extract marketing information by using intelligent, logical and sophisticated analyses and visualizations following an analytical framework.

Custom Designs for Industrial Experiments Using JMP® Software
Mark Bailey, PhD, Analytical Training Consultant, Education Division, SAS

Discover a state-of-the-art approach to designing industrial laboratory experiments that is based on the latest statistical theory and numerical methods. Advances in computer algorithms and hardware make this approach, once considered exotic and the domain of a few experts, available to everyone for all experiments.

Quality by Design (QbD) Using JMP® Software
Heath Rushing, co-founder and Principal Consultant, Adsurgo

Learn a systematic approach to pharmaceutical development as defined by QbD principles and gain an understanding of the application of statistics for setting specifications, assessing measurement systems (assays), developing a control plan as part of a risk management strategy and ensuring process control/capability. Analyses in this course use the point-and-click interface of JMP.

NEW! Specifying Models Using SAS® Structural Equation Modeling for JMP® Software
Catherine Truxillo, PhD, Manager, Analytical Education, Education Division, SAS

Experienced SEM analysts will learn to use the SAS Structural Equation Modeling for JMP, an easy-to-use diagram creating interface that automatically writes and submits code for the CALIS procedure, for performing analysis of structural equation models. Recorded Course.
Promoting Business Analytics Across the Enterprise
Aiman Zeid, Principal Business Consultant and Lead Developer, SAS Global Business Analytics Centers of Excellence Program

Uncover the key drivers that will facilitate the promotion and deployment of business analytics across the enterprise and explore how they should be best aligned to support the organization’s priorities. Gain a deeper understanding of the role and function of Business Analytics Centers of Excellence as well as their types and mandates. Learn guidelines for assessing your organization’s maturity, and for establishing a road map for an Enterprise Business Analytics Center of Excellence at your organization. This class only available upon request.

Online and Social Marketing
Web Analytics and Web Intelligence Using SAS®
Bart Baesens, PhD; or Christophe Mues, PhD, Assistant Professors, School of Management, University of Southampton (United Kingdom)

Gain an overview of state-of-the-art Web analytics, as well as advanced data mining techniques and applications for the Web, through a sound mix of theory and practice, illustrated by several real-life cases and hands-on exercises using SAS Web Analytics, SAS® Enterprise Miner™ and SAS/STAT® software.

Risk Management
Credit Risk Modeling Using SAS®
Bart Baesens, PhD; or Christophe Mues, PhD, Assistant Professors, School of Management, University of Southampton (United Kingdom)

Learn how to develop credit risk models in the context of Basel II and Basel III guidelines through a sound mix of both theoretical and technical insight as well as practical implementation details illustrated by real-life case studies and exercises.

Credit Scorecard Development and Implementation
Naeem Siddiqi, author of Credit Risk Scorecards and Principal Product Manager, Credit Scoring, Global Risk Practice, SAS

Gain the necessary knowledge to plan, develop, implement and maintain risk scorecards in-house through a high-level introduction to credit risk management and scorecard implementation strategies. In addition to course materials provided, you will receive a copy of Siddiqi’s book.

Supply Chain
NEW! Warranty and Service Contract Management: Best Practices
G. Terry Hawkins, President, Global Warranty and Service Contract Association, Industry Consultant

Discover analytic techniques to improve the effectiveness and efficiency of your warranty management processes. Learn optimal methods to handle claim flow and call centers, manage campaigns, accurately file and process claims, identify suspect claims, manage supplier relationships, time payments, analyze contracts and drive organizational change.

NEW! Warranty Maturity Model Assessment
G. Terry Hawkins, President, Global Warranty and Service Contract Association, Industry Consultant

Learn to use “The Maturity Model,” a proven self-assessment tool to guide original equipment manufacturers (OEMs) in evaluating warranty management and service contract programs. A facilitator will assist you in determining your current level of process maturity. You’ll establish next steps for your program and compose a formal report for senior management.
Enlighten and Inspire

Develop a course for the SAS Business Knowledge Series.

We’re seeking experts and influencers to address timely business trends and extend traditional SAS training. Collaborate with SAS and you’ll connect with learners around the world. Reap the financial, professional and intellectual rewards of sharing your knowledge.

support.sas.com/bks/partner to find out more information.
Bart Baesens, PhD, is an Assistant Professor at K. U. Leuven (Belgium) and a lecturer at the University of Southampton (United Kingdom). His extensive research on predictive analytics, data mining, customer relationship management, Web analytics, fraud detection and credit risk management has been published widely in international journals.

Mark Bailey, SAS Principal Analytical Training Consultant, initially began his career as a research chemist working on the development of medical diagnostics. He began software design and development when he learned how to program laboratory computers for real-time data acquisition and data reduction in graduate school. Most of his computing now is about statistics and simulation using JMP, SAS, Smalltalk or Objective-C. Bailey’s teaching focus is primarily in the JMP curriculum: design of experiments, statistical analysis and data modeling, reliability and scripting.

Patricia Berglund is a Senior Research Associate in the Survey Methodology Program at the Institute for Social Research at the University of Michigan. She has extensive experience in the use of SAS and related computing systems for data analysis and data management. In addition to mental health research, Berglund is involved in developing, implementing and teaching analysis courses and SAS training programs at the Survey Research Center/ISR.

Oral Capps Jr., PhD, is a demand and price analyst with particular expertise in econometric modeling and forecasting methods. He is a nationally and internationally recognized leader in demand analysis, specializing in working with large databases. Capps is a full professor and holder of the Southwest Dairy Marketing Endowed Chair in the Department of Agricultural Economics at Texas A&M University as well as Co-Director of the Agribusiness, Food, and Consumer Economics Research Center. He also is founder and managing partner of Forecasting and Business Analytics LLC, an economic consulting firm.
Goutam Chakraborty, PhD, has been a professor of marketing at Oklahoma State University for more than 17 years. During that time he has taught data mining and CRM applications, database marketing, new product development, marketing research, digital business strategy, Web business strategy, electronic commerce, interactive marketing, and product and pricing management. Chakraborty founded the SAS and OSU Data Mining Certificate program.

Peter Christie joined the Statistical Training and Technical Services Department at SAS in 2008 as a course developer and instructor. His current areas of interest include data mining, business analytics, model management, statistical graphics and operational risk management. Prior to SAS, Christie worked in the retail, banking, chemical and pharmaceutical industries. He holds an MBA with a concentration in information technology from the University of North Carolina at Chapel Hill.

Ron Cody, EdD, is a retired professor from the Robert Wood Johnson Medical School who now works as a private consultant and a national instructor for SAS. A SAS user since 1977, Cody’s extensive knowledge and innovative style have made him a popular presenter at local, regional and national SAS conferences. He has written or co-written numerous books as well as countless articles in medical and scientific journals.

Chris Daman has more than 20 years of teaching experience in the fields of programming, statistics and mathematics. After her graduate study at North Carolina State University and before joining SAS’ Education Division, Daman worked for a pharmaceutical company, taught software classes and worked as a survey statistician. For SAS, she teaches courses on ANOVA, regression and generalized linear models, design and analysis of probability surveys, multilevel modeling of hierarchical data, longitudinal data analysis and general linear mixed models.

David Dickey, PhD, is a professor in the Department of Statistics at North Carolina State University. His research focuses on time series analysis (dealing with data taken over time). In addition to writing four books, Dickey has published numerous papers and given more than 50 presentations at a variety of professional events and for various organizations. He has also been recognized as a member of the Academy of Outstanding Teachers at North Carolina State University.

Craig Dickstein, an independent consultant, works with clients and select project teams to implement customized business solutions for the health care industry. He has significant experience managing and developing SAS applications and has been a SAS user since 1978. Dickstein has a long history of involvement with SAS users groups as both an organizer and invited speaker.

John F. Elder IV, PhD, is President of Elder Research Inc., a data mining consulting team that focuses on investment, commercial and security applications of advanced analytics. He has created innovative data mining tools and co-written two books on data mining. His courses on analysis techniques—taught at dozens of universities, companies and government labs—are noted for their clarity and effectiveness.

Howard Friedman, PhD, works as a statistician and health economist for the United Nations, currently focused on the areas of maternal and newborn child health, health expenditures and fertility at UNFPA. A lead modeler on a number of key United Nations projects, Friedman has extensive management and teaching experience and has written more than 35 scientific articles and book chapters in applied statistics and health economics.
Michael Gilliland is Product Marketing Manager for SAS forecasting software, and author of *The Business Forecasting Deal*. He has more than 20 years of forecasting experience in the food, apparel and consumer electronics industries. He wrote a quarterly column on business forecasting for Supply Chain Forecasting Digest, and has published articles in Supply Chain Management Review (where he introduced forecast value added analysis in 2002), Foresight: The International Journal of Applied Forecasting, Journal of Business Forecasting, Analytics, and APICS magazine.

G. Terry Hawkins provides consulting services in the warranty and service contract business and runs a private law practice in Kentucky. He began his professional career as Director for Instructional Communications for the University of Louisville, then moved into the global renewable energy field as President of McDonnell Douglas Energy Systems. Leaving energy for a private law practice, he represented a number of commercial clients, including General Electric. That representation grew into high-level positions in warranty management for GE Consumer and Industrial and Assurant Solutions. Hawkins has a degree in general science from Indiana University and a Juris Doctor from the University of Louisville.

Tao Hong, PhD, is Assistant Professor and NCEMC Faculty Fellow at the Systems Engineering and Engineering Management Department and an Associate of the Energy Production Infrastructure Center at the University of North Carolina at Charlotte. His major areas of expertise are in forecasting and optimization. He has applied various statistical and optimization techniques to the development of algorithms and tools for utility applications of analytics such as energy forecasting, power system planning, renewable integration, reliability planning and risk management. He has provided consulting and education services to more than 100 organizations across all sectors of the utility industry. The long-term spatial load forecasting methodology implemented in his MS thesis and the short-term forecasting methodology proposed in his PhD dissertation have been commercialized and deployed to many utilities worldwide. Hong serves as the Founding Chair of the IEEE Working Group on Energy Forecasting and the General Chair of Global Energy Forecasting Competition.

Marc Huber developed cancer as a young man and went through a bone marrow transplant at age 16. An aspiring math major, the experience redirected him to psychology. Huber was first introduced to SAS in an undergraduate statistics course at the University of North Carolina-Chapel Hill. After some encouragement by his professors, he entered into the graduate program in quantitative psychology. Feeling a strong need to give back, Huber also achieved his master’s degree in social work. The idea to become a SAS instructor grew out of a conversation he had with a former SAS employee who had come to work at UNC, where Huber was working as a biostatistician and SAS programmer. With his combined passion for helping people and knowledge of the software, his new co-worker suggested, he would make a great SAS trainer. Huber joined SAS in 1988. When not teaching, Huber is very active in the community. He served as chairman for the American Cancer Society’s Orange County Relay for Life for three years, volunteers at the Ronald McDonald House, and spends a week in Montana every summer as a counselor at Camp Mak-a-Dream, a medically supervised, free camp for kids and their siblings operated by the Children’s Oncology Camp Foundation.

Mark Jordan began his computing career on mainframes in 1972, but took a 20-year hiatus to serve in the US Navy Submarine Service’s nuclear power program. Upon returning to civilian life, he resumed programming as a SAS applications developer on mainframes, UNIX and Windows platforms. In 2003 Jordan came to work at SAS, first in Latin America in the Caribbean and Andean Region group, where he served as Director of Technical Services, and finally settling into his current role as a Technical Trainer for SAS Education, where he teaches and develops SAS Foundation programming classes.
Joseph Johnson, PhD, is Associate Professor of Marketing at the University of Miami. His research focuses on how to use data and analytics to design marketing strategy. He has developed analytical models for profitable customization of retail promotions, selecting optimal customer portfolios, identifying high-value customers, measuring brand equity, financial valuation of new products, media optimization, successful entry into emerging markets and the dynamics of market inefficiencies in stock markets. He has more than 10 years of industry experience in India and the Middle East and has consulted with US and European firms in the banking, pharmaceuticals, hospitality and branded gourmet coffee industries in areas such as customer portfolio management, media optimization, customer segmentation and branding.

Kim Larsen is Vice President of Analytical Insights at Market Share Partners, a leading marketing science company based in Los Angeles. He has worked in the data mining and statistical modeling industry since 2001 and has programmed in SAS since 1995. Throughout his professional career, Larsen has worked on and managed a wide array of data mining and analytical problems. His main areas of research include additive nonlinear modeling and net lift, or incremental lift, models.

Gordon S. Linoff is a co-founder and Principal Consultant of Data Miners Inc., a specialist consulting company that focuses on data analysis and data mining and that provides public courses and on-site training. Linoff is a widely respected thought leader, practitioner and teacher in the area of data mining. He has a keen interest in understanding and analyzing large data sets and in applying the results to business problems.

Robert M. Lucas, PhD, Director of Analytical Education at SAS, has more than 32 years of experience as an applied statistician. During his tenure at SAS, Lucas has developed and taught advanced statistics, time series, data mining and mathematical optimization classes as well as provided customized training and consulting for many industries, including government, pharmaceuticals, banking, manufacturing and retail.

Stephen Mistler is the founder of Mistler Statistical Consulting LLC. He uses SAS extensively for conducting statistical analyses, testing advanced statistical software algorithms using IML, and for developing SAS macros for publication. As a PhD student, Mistler was named a SAS Student Ambassador Honorable Mention for papers that he presented at SAS Global Forum. He was also named a SAS Summer Fellow in Statistical Software Development. His current research focuses on methods for handling missing data, latent variable models, and statistical software development.

Christophe Mues, PhD, is an Assistant Professor at the School of Management of the University of Southampton (United Kingdom). One of his key research interests is in the business intelligence domain, where he has investigated the use of decision table and diagram techniques in a variety of problem contexts, most notably business rule modeling and validation. His other key research areas include knowledge discovery and data mining, with a strong interest in applying data mining techniques to financial risk management and, in particular, credit scoring.

Walter R. Paczkowski, PhD, is the founder of Data Analytics Corp., a statistical consulting firm focused on applying advanced statistical methodologies to a variety of complex business problems—primarily pricing—across an array of industries, including banking, beverages, clothing, direct marketing, food, jewelry, packaged goods, pharmaceuticals, publications and various technologies. He is an adjunct professor of economics (specializing in econometrics) at Rutgers University and was formerly an adjunct professor of mathematics and statistics at The College of New Jersey. He has worked in various quantitative positions in the business research and forecasting divisions at AT&T. He also worked at AT&T Bell Labs (and later AT&T Labs) in the Consumer Lab Division, where he applied advanced statistical techniques to identifying consumer preferences and willingness to pay for telecommunications services.
Naeem Siddiqi has more than 15 years of experience in credit risk management, both as a consultant and as a risk manager at financial institutions. Siddiqi has played a key role in the development of SAS Credit Scoring, and he continues to provide worldwide support for this initiative. His responsibilities range from pre-sales support to consultancy for various projects.

Jeffrey R. Thompson, PhD, is an Analytical Training Consultant in the Education Division at SAS. He started his career in academia with the Department of Statistics at North Carolina State University in Raleigh, where he received an outstanding teacher award and achieved the rank of Associate Professor. Author of the teacher’s edition of David Moore’s *The Basic Practice of Statistics (Fourth Ed)* and numerous peer-reviewed journal articles, Thompson gives frequent research talks and seminars, including presentations at regional, national and international statistical conferences and universities.

Mike Thurber, Senior Data Miner at ERI, has a passion for extracting relevant and valuable intelligence from available data, including gleaning insights on how complex consumer choices affect sales; predicting profitability of prospective customers; showing how call center interactions affect customer retention; and forecasting recovery of losses due to default. Prior to ERI, he developed engineering modeling software, consulted on business intelligence applications, advised on many data warehousing projects and served in several analytic roles in manufacturing and finance.

Paul W. Thurman has extensive management consulting and line management experience helping a variety of Fortune 500 firms realize value from innovative and coordinated business, operations and technology strategies. In addition to faculty appointments at Columbia’s School of International and Public Affairs and at its Mailman School of Public Health, Thurman serves as a clinical professor and affiliated researcher at the National Cancer Institute’s Center for Cancer Research at the National Institutes of Health.
Catherine Truxillo, PhD, is manager of Analytical Education at SAS and has been teaching for SAS since 2000. She has written or co-written many SAS training courses for advanced statistical methods. Truxillo also teaches SAS courses using SAS/IML® (the interactive matrix language), SAS® Enterprise Guide® and JMP® software. Previous experience with teaching, statistical consulting and software design led her to her job teaching statistics for SAS.

Chip Wells, PhD, has more than 15 years of experience in implementing theoretical and applied econometrics using the SAS programming language and SAS solutions. He is an Analytical Training Consultant in the Education Division at SAS where he instructs and consults with analysts from the federal government and the chemical, energy, financial, health care and transportation industries. He was previously a Principal Analytic Consultant in the SAS Advanced Analytics Lab, where he developed solutions that focus on time series analysis of financial variables and on building forecast models using sentiment data. Wells is the co-author of the book *Applied Data Mining and Forecasting Using SAS®*. He holds a PhD in economics and an MA in economics with a statistics minor. His dissertation was published in 2008 by VDM (Verlag).

Peter Westfall, PhD, is the Paul Whitfield Horn Professor of Statistics and the James Niver Professor of Information Systems and Quantitative Sciences at Texas Tech University. He has consulted with various companies and government agencies for 20 years and has published more than 100 articles as well as three books on statistical theory and practice. Westfall is a Fellow of the American Statistical Association and a Fellow of the American Association for the Advancement of Science.

Jeff Zeanah is the President of Z Solutions Inc., a firm focused on the support of organizations through predictive analytics and exploratory data mining. His primary interests and research concern the problems organizations face in improving their business decisions through data analysis, including predictive analytics and the selling of the results. Zeanah has consulted with industry leaders in manufacturing, retail, public health, science, finance, nutrition and utilities.

Aiman Zeid has more than 23 years of experience in information management, technical implementation of business intelligence and performance management solutions, and management consulting. Lead developer of the SAS Global Business Analytics Centers of Excellence Program, Zeid also contributed to the development of the Information Evolution Model assessment methodology and services.

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SAS® Business Knowledge Series

COURSE SCHEDULE

January – June 2014

Programming

Data Cleaning Techniques .................................................... $1,650
Rockville, MD    Feb. 10-11
New York        April 14-15
Chicago         June 9-10

Healthcare Data and the SAS® System .................................... $1,650
New York        March 5-6
Boston          June 23-24

Healthcare Data and the SAS® System:
Hands-On Programming Workshop ........................................ $825
New York        March 7
Boston          June 25

SAS® Functions by Example .................................................... $1,650
San Francisco   Jan. 30-31
Atlanta         March 31-April 1
Rockville, MD   May 6-7

Statistical Analysis

Imputation Techniques in SAS® .............................................. $825
Live Web      March 26-27 (two half-day sessions)

Multilevel Modeling of Hierarchical and Longitudinal
Data Using SAS® ................................................................. $2,475
Live Web      Jan. 29-31, Feb. 5-7 (six half-day sessions)
Chicago       March 12-14
Live Web      May 7-9, 14-16 (six half-day sessions)
San Francisco  June 3-5

Multiple Comparisons and Multiple Tests
Using SAS® ................................................................. $415
Live Web      April 4 (one half-day session)

Propensity Score Matching, Adjustment,
and Randomized Experiments ........................................... $1,650
New York        Feb. 6-7
Atlanta         March 27-28
Chicago         June 12-13

Robust Regression Techniques in SAS/STAT® ......................... $415
Live Web      June 20 (one half-day session)

Course schedule is subject to change. Visit the Web for the most current information, including international dates.
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<tr>
<td>Structural Equation Modeling Using SAS</td>
<td>$1,650</td>
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<td>Chicago: June 5-6</td>
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<td>Analytic: Putting It All to Work</td>
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<td>Customer Segmentation Using SAS Enterprise Miner</td>
<td>$2,475</td>
<td>San Francisco: Jan. 29-31</td>
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<td>New York: June 25-27</td>
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<td>Data Mining: Principles and Best Practices</td>
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<td>New York: May 5-6</td>
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<td>Econometrics and Forecasting</td>
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<td>Exploratory Analysis for Large and Complex Problems Using SAS Enterprise Miner</td>
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<td>Live Web: Feb. 25-28</td>
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<td>Stationarity Testing and Other</td>
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<td>Live Web: May 6-9</td>
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<td>Data Mining</td>
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<td>Net Lift Models: Optimizing the Impact of Your Marketing Efforts</td>
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<td>Advanced Analytics for Customer Intelligence Using SAS</td>
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<td>Chicago: April 14-16</td>
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