

# SAS Education

Providing knowledge through global training and certification

- Specialkurser A2010 Analytics Conference
- Globala experter

## Kontaktinformation

Stora Frösunda Gård  
Box 609  
169 20 SOLNA (Stockholm)

Telefon 08 - 522 170 00

[www.sas.com/sweden](http://www.sas.com/sweden)

# SAS® Analytics



Statistik och analys

Data mining

Forecasting

JMP® software



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# SAS Forum 2010 och specialkurser

I samband med SAS Forum 2010 finns det möjlighet att delta på exklusiva endagskurser, halvdags ”prova-på-kurs” och möjlighet till certifiering.

Den 4 oktober äger följande aktiviteter rum i SAS Institutes utbildningslokaler på Stora Frösunda Gård.

## **Endagskurser**

- Statistik och Grafik med ODS
- Användning och optimering av metadata med SAS procedurer och datastegsfunktioner

## **Prova-på-kurs halvdag**

- Enterprise Miner 6.1
- Enterprise Guide 4.3 och WebReport Studio 4.3

## **Certifiering halvdag**

- SAS Certified Base Programmer 9
- SAS Certified Advanced Programmer 9
- SAS Certified Predictive Modeler Using SAS Enterprise Miner 5 eller 6



## **Frågor?**

Har du frågor om SAS Forum eller utbildningsaktiviteterna den 4 oktober så kan du ta kontakt med Marie Lienzén genom att skicka ett email till [kurser@swe.sas.com](mailto:kurser@swe.sas.com)

# SAS® Master Class

SAS Masterclass är en fyraveckors utbildning i SAS programvara. De två första veckorna består av ett basblock där fokus ligger på programmering. Detta basblock avslutas med en SAS Base certifiering.

Därefter finns det möjlighet att inrikta sig mot ett fokusområde. Välj mellan Analys, Business Intelligence eller Data Integration.

Utbildningens två delar innehåller följande:

## **Basblock:**

- SAS Overview
- SAS Programming 1:Essentials
- SAS Programming 2: Data Manipulation Techniques
- Certification exam: SAS Certified Base Programmer for SAS 9

## **Fokusområden:**

### *Analys*

- Enterprise Guide: Querying and Reporting
- Statistics with SAS Enterprise Guide
- Applied Analytics using SAS Enterprise Miner

### *Business Intelligence*

- Enterprise Guide: Querying and Reporting
- Creating Business intelligence for your organization with SAS Reporting Applications

### *Data Integration*

- Enterprise Guide: Querying and Reporting
- Data Integration Studio: Essentials and Advanced

Varje block avslutas med ett praktiskt exempel.



# analytics conference A2010

[www.sas.com/a2010](http://www.sas.com/a2010)

## Second Annual A2010 Analytics Conference

Copenhagen, Denmark | 2-3 September 2010

Join hundreds of data analysts from all over the world for a conference that will change the way your organization uses its most important asset: data.

A2010 brings together the intelligence, innovation and leadership of the analytics profession, covering all the key areas: **data mining**, **forecasting**, **operational research** and **statistical analysis**.

Presented by  
  
THE POWER TO KNOW<sup>®</sup>

# Globala Experter

Fyra av specialkurserna som anordnas i samband med A2010 Analytics Conference leds av experter från USA, England och Österrike.

## **Kim Larsen**

*Director in the Advanced Analytics group at Charles Schwab & Co., USA.*

Kim Larsen is director in the Advanced Analytics group at the Charles Schwab & Co., in San Francisco. The Advanced Analytics team works directly with partners in marketing, finance, and product management to solve business problems through statistical analysis and optimize the impact of business levers.

He has more than eight years of experience in data mining and statistical modeling in the financial services industry. Throughout his professional career he has worked on a wide array of data mining problems including customer segmentation, forecasting, price optimization and predictive modeling for various applications.

Kim holds a BA in mathematics and economics and an MS in statistics.

## **Gerhard Svolba**

*Ph.D., author, product manager at SAS Institute in Austria.*

Gerhard Svolba, Ph.D., is product manager and presales consultant at SAS in Austria, where he specializes in analytics and customer intelligence. His project experience ranges from conceptual considerations (both business and technical) to data preparation and analytical modeling. He is the author and co-author of numerous papers on medical statistics. He is the author of the book *Data Preparation for Analytics Using SAS*, published in 2006.

## **Gordon Linoff**

*Founder and principal of Data Miners, Inc., USA.*

Gordon Linoff has had a keen interest in understanding and analyzing large data sets and in applying the results to business problems since he was a student at the Massachusetts Institute of Technology. Gordon is a practitioner, thought-leader, and teacher in the area of data mining.

Gordon is the founder and principal of Data Miners, Inc., a consulting group focused on data mining. Prior to founding Data Miners in 1998, he also worked at Naviant Technology Solutions and Thinking Machines Corporation. He has consulted for a wide range of companies including Bank of America, BT, The Limited, The New York Times, T-Mobile, The Teaching Company, and Pfizer.

## **Bart Baesens (Kommer till Stockholm 20-22 september)**

*Assistant professor at the Faculty of Applied Economic Sciences at the K.U.Leuven, Belgium and the School of Management of the University of Southampton, UK.*

Bart Baesens has done extensive research on predictive analytics, data mining, customer relationship management, fraud detection, and credit risk management. His findings have been published in well-known international journals and presented at international top conferences. He regularly tutors, advises, and provides consulting support to international firms with respect to their data mining, predictive analytics, and credit risk management policy.

# Statistik och analys

## **Statistics 1: Introduction to ANOVA, Regression, and Logistic Regression**

This course is for SAS software users who perform statistical analyses using SAS/STAT software. The focus is on t-tests, ANOVA, linear regression and logistic regression. This course (or equivalent knowledge) is a prerequisite to many of the courses in the statistical analysis curriculum.

Learn how to generate descriptive statistics, perform analysis of variance, perform linear regression, use regression model selection techniques to aid in the choice of predictor variables in multiple regression, use diagnostic statistics to assess statistical assumptions and identify potential outliers in multiple regression, use chi-square statistics to detect associations among categorical variables, and fit a multiple logistic regression model.

## **Statistics 2: ANOVA and Regression**

This course teaches you how to analyze continuous response data and discrete count data. Linear regression, Poisson regression, negative binomial regression, gamma regression, analysis of variance, linear regression with indicator variables, analysis of covariance, and mixed models ANOVA are presented in the course.

Learn also how to use the ODS Graphics facility and the new SG graphical procedures in SAS 9.2.

## **Introduction to Programming with SAS/IML® Software**

This course teaches you how to use the IML procedure via the programming language. You will benefit from this course if you plan to use SAS/IML for matrix manipulations or if you plan to use it to implement statistical, econometric, or operations research methods.

Learn how to explicitly assign values to a new matrix, create a matrix from a SAS data set and create a data set from a matrix, use matrix operators and functions in assignment statements, use IML commands to control the programming environment, use subscript operators to summarize and subset matrices, use iterative and conditional processing to control program flow, and write, store, and retrieve IML modules.

## **Predictive Modeling Using Logistic Regression**

This course covers predictive modeling using SAS/STAT software with emphasis on the LOGISTIC procedure. This course also discusses selecting variables, assessing models, treating missing values, and using efficiency techniques for massive data sets.

Learn how to use logistic regression to model an individual's behavior as a function of known inputs, create effect plots and odds ratio plots using ODS Statistical Graphics, handle missing data values, tackle multicollinearity in your predictors, and assess model performance and compare models.

## **Mixed Models Analyses Using SAS®**

This course teaches you how to analyze linear mixed models using PROC MIXED. A brief introduction to analyzing generalized linear mixed models using PROC GLIMMIX is also included.

Learn how to analyze data (including binary data) with random effects, fit random coefficient models and hierarchical linear models, analyze repeated measures data, obtain and interpret the best linear unbiased predictions, perform residual and influence diagnostic analysis, and deal with convergence issues.

## **Building and Solving Optimization Models with SAS/OR®**

This course focuses on formulating and solving mathematical optimization using the OPTMODEL procedure, from inputting data to interpreting output and generating reports. The course covers linear, integer, mixed-integer, and nonlinear programming problems, with an emphasis on model formulation and construction.

Learn how to formulate and solve linear programming problems using the OPTMODEL procedure, solve integer and mixed-integer programming problems using the OPTMODEL procedure, and solve nonlinear programming problems using the OPTMODEL procedure.

# Data mining

## **Data Mining Techniques: Theory and Practice**

*Instructor: Gordon S. Linoff, founder of Data Miners, Inc. and co-author of Data Mining Techniques and Mastering Data Mining, US.*

This course introduces a data mining methodology that is a superset to the SAS SEMMA methodology around which SAS Enterprise Miner is organized. The course also introduces a wide range of data mining algorithms and both theoretical knowledge and practical skills.

In this class, you work through all the steps of a data mining project, beginning with problem definition and data selection, and continuing through data exploration, data transformation, sampling, portioning, modeling, and assessment.

## **Advanced Analytics for Customer Intelligence Using SAS®**

*Instructor: Bart Baesens, Ph.D., assistant professor at the School of Management of the University of Southampton, UK.*

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

## **Applied Analytics Using SAS® Enterprise Miner™**

This course covers the skills required to assemble analysis flow diagrams using the rich tool set of SAS Enterprise Miner for both pattern discovery (segmentation, association, and sequence analyses) and predictive modeling (decision tree, regression, and neural network models).

Learn how to define a SAS Enterprise Miner project and explore data graphically, modify data for better analysis results, build and understand predictive models such as decision trees and regression models, compare and explain complex models, generate and use score code, apply association and sequence discovery to transaction data, use other modeling tools such as rule induction, gradient boosting, and support vector machines.

## **Advanced Predictive Modeling Using SAS® Enterprise Miner™**

This course teaches you how to optimize the performance of predictive models beyond the basics. The course continues the development of predictive models that begins in the Applied Analytics Using SAS Enterprise Miner course.

Learn how to use advanced techniques for input selection and model assessment, construct and evaluate two-stage and multi-stage models using SAS Enterprise Miner, and evaluate variability in model predictive performance.

### **SAS® Certified Predictive Modeler Using SAS® Enterprise Miner™ 5 Credential**

Få bevis på dina nyvunna kunskaper inom SAS Enterprise Miner genom att certifiera dig.

Vill du veta mer, kontakta oss på:  
kurser@swe.sas.com

# Data mining

## **Managing SAS® Analytical Models Using SAS® Model Manager**

This course focuses on the following key areas: managing SAS Model Manager data sources, creating a SAS Model Manager project, importing models into SAS Model Manager, using the SAS Model Manager Query Utility, creating scoring tasks, exporting models and projects into a SAS repository, and creating and configuring version life cycles.

The course also covers generating SAS Model Manager model comparison reports, publishing and deploying SAS Model Manager models, creating SAS Model Manager production model monitoring reports, and creating user-defined reports.

## **Mining Textual Data Using SAS® Text Miner for SAS® 9**

This course covers the functionality of SAS Text Miner software, which is a separately licensed component available for SAS Enterprise Miner.

Learn how to process and prepare textual data for analysis, convert unstructured character data into structured numeric data, explore phrases in a document collection and group documents using similarity measures, find documents most closely associated with a word or phrase, and words or phrases most closely associated with a document, and use textual data to improve predictive models.

## **Net Lift Models: Optimizing the Impact of Your Marketing Efforts**

*Instructor: Kim Larsen, director in the Advanced Analytics group at Charles Schwab & Co., USA.*

The true effectiveness of a marketing campaign is not the response rate. It is the “incremental” impact. That is, additional revenue directly attributable to the campaign that would not otherwise have been generated. The problem is that targeting strategies often are not designed to maximize the incremental impact. Typical targeting models are successful at finding clients that are interested in the product, but too often these clients would have bought the product regardless of whether they received a promotion. In such cases, the incremental impact is insignificant and marketing dollars could have been spent elsewhere. Net Models are designed to maximize incremental impact (that is, the “net lift” over the control group) by targeting the undecided clients that can be motivated by marketing.

## **Building Analytic Data Marts**

*Instructor: Gerhard Svolba, Ph.D, author, product manager at SAS Institute in Austria.*

This course teaches the ecosystem for analytic data preparation, as well as the most commonly used data structures and their adequacy for certain analytic business questions. You receive a guideline for how to approach the creation of important derived variables and learn tips and tricks for efficient SAS programming for the creation of analytic data marts.

# Forecasting

## **Forecasting Using SAS® Forecast Server software**

This course prepares you to generate large volumes of forecasts automatically using the SAS Forecast Studio interactive interface.

Learn how to automatically create and fit custom forecast models to large-scale time series data sets, identify series that do not have acceptable forecast accuracy, refine forecast models to improve forecast accuracy, reconcile hierarchical forecasts, produce reports using stored processes, generate forecast data sets for deployment, and accommodate data updates in large-scale time series data sets.

## **Forecasting Using SAS® Software: A Programming Approach**

This course teaches analysts how to use SAS/ETS software to create forecasting models, evaluate the model for accuracy, and forecast future values using the model.

Learn how to build simple forecast models, build advanced forecast models for auto correlated time series and for time series with trend and seasonality, and build forecast models that contain explanatory variables.

## **Using SAS® High-Performance Forecasting Software**

This course teaches you how to make accurate forecasts quickly and automatically using the SAS Forecast Server procedures, giving you the power to confidently plan your business operations.

Learn how to process time series data, automate the large-scale forecasting process, add custom models and selection lists to a model repository, create event variables to use as inputs to forecast models, and produce, assess, and modify forecasts.

## **JMP® Software: Data Exploration**

This course is designed as the first step for those who want to use JMP to manage, analyze, and explore data.

Learn how to navigate the JMP interface, manage data effectively in JMP, explore data by using JMP software's extensive graphical capabilities, and create and manage reports in JMP.

## **JMP® Software: ANOVA and Regression**

This course teaches how to analyze data with a single continuous response variable using analysis of variance and regression methods. You learn how to perform elementary exploratory data analysis (EDA) and discover natural patterns in data. Important statistical concepts such as confidence intervals are also introduced.

Learn how to compare two means using a t-test, generate and interpret an analysis of variance to compare more than two means, analyze relationships between continuous variables using simple and multiple linear regression models, perform an analysis of covariance to incorporate continuous and categorical predictors, and evaluate assumptions in statistical hypothesis testing.

## **JMP® Software: Introduction to the JMP® Scripting Language**

This course demonstrates how to extend JMP software's functionality using the JMP Scripting Language (JSL) to automate routine procedures, extend or create new procedures, and customize reports.

Learn how to use the basic elements in JSL, use messages, functions, and expressions to create new data tables and columns, control analyses, and capture or modify reports, create and use dialogs to adapt script behavior, and save JMP scripts as custom menu or toolbar items to automate routine analyses and reporting.

## **JMP® Software: Classic Design of Experiments**

This course teaches you how to design and analyze experiments. Designed experiments can help optimize the process response or identify the vital few factors that drive your product or process. The course emphasizes the principles of experimental design and includes screening designs and response surface designs.

Learn how to explain the fundamental principles of designed experiments, generate and analyze full factorial, fractional factorial, split-plot, and screening designs, including designs with blocking factors, create and analyze classic response surface designs, and use the custom design tool.

# SAS® certification

SAS certification is a global credential for showing broad knowledge in SAS Software. In the Analytic area you have a possibility to test your Mining knowledge.

## **SAS® Certified Predictive Modeler using SAS® Enterprise Miner™ 5 or 6 Credential**

A candidate for this exam should have the ability to:

- Prepare data
- Build predictive models
- Assess models
- Score new data sets
- Implement models.

During this performance-based examination, candidates will use SAS Enterprise Miner to perform the examination tasks. It is essential that the candidate have a firm understanding and mastery of the functionalities for predictive modeling available in SAS Enterprise Miner 5 or 6. Candidates for this examination can elect to complete this examination using the SAS Enterprise Miner 5.2, 5.3, or 6.1 interface.

The recommended preparation for this exam is Applied Analytics Using SAS Enterprise Miner Course (these are available in the training centers as well as Live Web and e-Learning)





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BOX 609 169 26 SOLNA Tel +46 (0)8 522 170 00 Fax +46 (0) 8 522 170 70

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