



NEBSUG
Nebraska SAS®
Users Group

NEBRASKA SAS® USERS GROUP 2014 ONE-DAY CONFERENCE

MAY 20, 2014

Scott Conference Center

6450 Pine St, Omaha NE 68106



Conference Chairs: **Robin High** --- University of Nebraska Medical Center
Anne O'Keefe --- Douglas County Health Department

Sponsors:



Message from Co-Chairs

Dear Nebraska SAS® Users,

The Nebraska SAS Users Group 2014 One-Day Conference will be held on Tuesday, May 20 in Omaha at the Scott Conference Center, the same location as the 2013 conference.

What is new this year? A Hands-On Workshop! For the first time, we will provide a classroom style session. Vince DelGobbo of the SAS Institute will present his famous *CREATING MULTI-SHEET MICROSOFT EXCEL WORKBOOKS THE EASY WAY WITH SAS* in the morning. In the afternoon, professional SAS trainer and consultant Ben Cochran will do another Hands-On Workshop (HOW) session *USING MACRO FUNCTIONS TO MANIPULATE DATA*. If you would like to attend a HOW session, please bring your own laptop with SAS and Microsoft Office. If you don't have one, we will have 20 laptops available for the HOW sessions.

Rick Langston of the SAS Institute, will present a keynote speech titled *WHAT'S NEW IN 9.4 FOR SAS*. This is our chance for an overview of all the new features in SAS 9.4. Right after that Mel Rush of the SAS Institute will also talk about SAS 9.4 with a focus on analytics. Rick and Mel will give additional talks later in the day as well.

We have lined up a team of high quality invited speakers. Among them, Ben Cochran has two more presentations. He will also teach two SAS classes after the conference. Arthur Li, another invited speaker, is a rising star in SAS user communities and has a proven track record at Midwest SAS Users Group (MWSUG) conferences. He will present two papers. Gary Ciampa from SAS Institute, will give a presentation on "Big Data." This is currently a hot topic.

We are also excited to announce that Dr. Ron Cody, retired professor of Rutgers University and author of many popular SAS books, has accepted our invitation and will present three sessions. During the closing session, we will give away four books Professor Cody wrote, all with his autograph. And we will have door prizes again at the closing session.

The conference is going to offer a low early registration fee of \$80, with breakfast and lunch included. The early registration will be available on Monday, March 31, 2014 through Friday, May 9, 2014.

The conference is made possible by our volunteers and our sponsors: 1st Consulting, UNMC, JMP from SAS, and SAS Institute. Be sure to thank them!

Come join us and your fellow SAS users for a fun, informative and educational experience. And trust us - this conference will provide lots of value.

Robin High & Anne O'Keefe

NEBSUG 2014 Conference Co-chairs



Network with Fellow SAS® Users

Learn from the SAS Pro's

Learn more about SAS 9.4

Three Concurrent Sessions with 14 Presentations

Scholarship for students

Including Two Hand-On Workshops **New!!!**

Conference Information:

This one-day conference will provide an opportunity to enhance your SAS skills and improve your understanding of the SAS System. There will be three concurrent sessions throughout the day -- all for a registration fee of only \$80, with breakfast and lunch included! Registration and scholarship forms are at the end of this announcement. It is recommended that you use the online registration system.

Date: Tuesday, May 20, 2014

Location: Scott Conference Center (See map and direction on next page)
6450 Pine St., Omaha NE 68106

Registration Fee: \$80 for Early Registration by Friday, May 9, 2014
(Only \$10 for student early registration)
\$110 for Late and On-site Registration after May 9, 2014

Online Registration: Registration will start on Monday, March 31, 2014 at:
<https://www.regonline.com/NEBSUG2014>

Conference Cancellation Policy: A \$60 refund (with a \$20 processing fee) can be made if requested by May 9, 2014. Substitution is accepted with advance notice. There is no charge for substitution.

SAS Classes Two post-conference SAS training classes are scheduled on 5/21/14 and 5/22/14. For details, see SAS Class Information starting on Page 13 in this announcement.

Scholarship: Students may apply scholarship for professional SAS training classes by completing the application form located at the end.

Check in: Starting at 7:45 AM on May 20, 2014.

Schedule: The Opening Session/Keynote will begin at 8:30 AM. Three concurrent sessions will start at 9:20 AM. Lunch will be served at noon. The afternoon sessions will start at 1:30 PM. The closing session will start at 4:00 PM and will conclude at 4:30 PM. Each presentation will last for about 50 minutes.

Lunch: Lunch on site is included in your registration fee.

Hotel: Courtyard Omaha Aksarben Village
1625 South 67th Street
Omaha, NE 68106
(402) 951-4300
* Only one block away. Ask for Scott Conference Center contract rate.
You may use other nearby hotels.

Directions:

From the South: From I-80 and 72nd Street
Head North on 72nd Street
(left if coming from the west; right if coming from the east)
Turn Right on Pine Street for .6 Miles
Continue past the lights on 67th Street
Scott Conference Center is on Your Left

From the West From I-680 & Pacific Street, go East to 67th Street
Turn Right on 67th Street
Continue to Stoplight and Turn Left onto Pine Street
Scott Conference Center is on Your Left



Parking: Parking in Lot 9 across from The Scott Conference Center is **complimentary**

Questions : E-mail your question to Conference Chairs at: Omaha1day@yahoo.com

Conference Schedule [number in () is the index in abstract section]

5/20	Central Room	Northeast Room	Southeast Room
8:00 - 8:30	Check In (Breakfast served)		
8:30 - 9:10	Opening Session/ Keynote Speech <i>What's New in Version 9.4 for SAS®</i> Rick Langston (1)		
9:20 - 10:10	Big Data, Fast Processing Speeds Gary (7)	What's New for Analytics in SAS 9.4? Mel (5)	Reading and Writing ZIP Files Rick (2)
10:20 - 11:10	Longitudinal Data Techniques: Looking Across Observations Ron (12)	A Tutorial on PROC LOGISTIC Arthur (8)	An Introduction to Creating Multi-Sheet Microsoft Excel Workbooks the Easy Way with SAS * Hands-on Workshop Vince (3)
11:20 - 12:10	Big Money Proc Tabulate Ben (10)	Exploring and Modeling Using Interactive Decision Trees in SAS Enterprise Miner Mel (6)	
12:10- 1:30	Lunch Sponsored by SAS Institute		
1:30 - 2:50	A Survey of Some Useful SAS Functions Ron (13)	You Want ME to Use SAS Enterprise Guide® ?? Vince (4)	Using Macro Functions to Manipulate data * Hands-on Workshop Ben (11)
3:00 - 3:50	What's New in JMP Version 11? Mel (14)	Essentials of PDV: Directing the Aim to Understanding the DATA Step! Arthur (9)	
4:00 - 4:20	Closing Session/Door Prizes		

Class Schedule:

Instructor: Ben Cochran

5/21	Manipulating Data with SAS Functions
5/22	Manipulating Data with DO Loops and SAS Arrays



MWSUG 2014

Hyatt Regency Chicago
151 E Wacker Dr
October 5-7, 2014



Conference Co-Chairs

Academic Chair

Cindy Lee

Eli Lilly and Company

c_lee@lilly.com

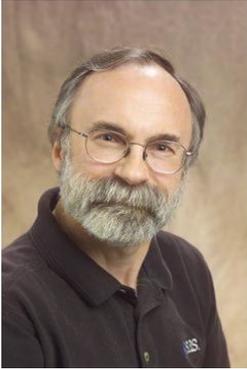
Operations Chair

Craig Wildeman

Kohler Co.

craig.wildeman@kohler.com





Presentation Abstracts

Keynote Speaker: Rick Langston

SAS Institute

WHAT'S NEW IN 9.4 FOR SAS®

ABSTRACT: SAS 9.4 has been an exciting release for developers at SAS Institute. Rick Langston, manager of Core Systems in SAS Foundation, will provide an overview of new features in SAS 9.4, and what is planned for upcoming releases. Some of the new features covered include the new SAS Studio web editor, enhancements to ODS and Graphics, and new features in Analytics products.

(2) Reading and Writing ZIP Files with SAS

Rick Langston, SAS Institute

9:20 a.m.

ABSTRACT: The ZIP access method is new with SAS 9.4. This paper provides several examples of reading from and writing to ZIP files using this access method, including the use of the DATA step directory management macros and the new MEMVAR= option.

(3) Introduction to Creating Multi-Sheet Microsoft Excel Workbooks the Easy Way with SAS (2-hour HOW session)

Vince DelGobbo, SAS Institute

10:20 a.m.

ABSTRACT: Transferring SAS data and analytical results between SAS and Microsoft Excel can be difficult, especially when SAS is not installed on a Windows platform. This presentation provides basic information on how to use Base SAS 9 software to create multi-sheet Excel workbooks (for Excel versions 2002 and later). You will learn techniques for quickly and easily creating attractive, multi-sheet Excel workbooks that contain your SAS output using the ExcelXP tagset. The techniques can be used regardless of the platform on which SAS software is installed. You can even use them on a mainframe! More in-depth information on this topic will be presented if time permits.

(4) You Want ME to use SAS® Enterprise Guide??

Vince DelGobbo, SAS Institute

1:30 p.m.

ABSTRACT: Starting with SAS9, one copy of SAS Enterprise Guide is included with each PC SAS license. At some sites, desktop PC SAS licenses are being replaced with a single server-based SAS license and desktop versions of Enterprise Guide. This presentation will introduce you to the Enterprise Guide product, and provide you with some good reasons why you should consider using it.

(5) What's New for Analytics in SAS 9.4?

Melodie Rush, SAS Institute

9:20 a.m.

ABSTRACT: Many new analytical enhancements and procedures have been added for SAS 9.4 analytical product including Base SAS, SAS/Stat, SAS/ETS, and SAS Enterprise Miner. This session not only covers the new additions but also provides examples. This session includes both the 12.3 and 13.1 versions.

(6) Exploring and Modeling Using Interactive Decision Trees in SAS Enterprise Miner

Melodie Rush, SAS Institute

11:20 a.m.

ABSTRACT: Decision trees are a useful, multi-purpose tool in a modeler's tool chest. Not only can decision trees be used for predictive modeling, they can be used for variable selection, variable importance, interaction detection, missing value imputation and model interpretation. In this session, we will discuss and illustrate how to take advantage of the decision tree tool in SAS Enterprise Miner™ including interactive decision trees for exploration and modeling.

(7) Big Data, Fast Processing Speeds

Gary Ciampa, SAS Institute

9:20 a.m.

ABSTRACT: Big data is a popular term used to describe the exponential growth and availability of data, both structured and unstructured. Big data processing requires both accuracy and efficiency to meet the demanding and near-real time decision making for today's business environments.

This session covers various techniques to increase efficiency of SAS programs as well as techniques to optimize processing time for very large data sets or databases, including PROC SQL, data step, indexes and SAS macros. These techniques and processes may result in marginal or significant performance benefits, and when processing millions of observations the efficiency improvements can be significant. The session includes code segments, analysis and actual time comparisons to demonstrate the performance improvements associated with each technique.

(8) A Tutorial on PROC LOGISTIC

Arthur Li, City of Hope

10:20 a.m.

ABSTRACT: In the pharmaceutical and health care industries, we often encounter data with dichotomous outcomes, such as having (or not having) a certain disease. This type of data can be analyzed by building a logistic regression model via the LOGISTIC procedure. In this paper, we will address some of the model-building issues that are related to logistic regression. In addition, some statements in PROC LOGISTIC that are new to SAS 9.2 and ODS statistical graphics relating to logistic regression will also be introduced in this paper.

(9) Essentials of PDV: Directing the Aim to Understanding the DATA Step!

Arthur Li, City of Hope

3:00 p.m.

ABSTRACT: Google (www.google.com) is the worlds most popular and widely-used search engine. As the premier search tool on the Internet today, SAS and JMP® users frequently need to identify and locate SAS and JMP content wherever and in whatever form it resides. This paper provides insights into how Google works and illustrates numerous search tips and techniques for finding articles of interest, reference works, information tools, directories, PDFs, images, current news stories, user groups, and more to get search results quickly and easily.

(10) Big Money PROC TABULATE

Ben Cochran, Bedford group

11:20 a.m.

ABSTRACT: Several years ago, one of my clients was in the business of selling reports to hospitals. He used PROC TABULATE to generate part of these reports. He loved the way this procedure 'crunched the numbers', but not the way the final reports looked. He said he would go broke if he had to sell naked PROC TABULATE output. So, he wrote his own routine to take TABULATE output and render it through Crystal Reports. That was before SAS came out with the Output Delivery System (ODS). Once he got his hands on SAS ODS, he kissed Crystal Reports good-bye. This paper is all about using PROC TABULATE to generate fantastic reports. If you want to generate BIG money reports with PROC TABULATE, this presentation is for you.

(11) Using Macro Functions to Manipulate data *(2-hour HOW session)*

Ben Cochran, Bedford group

1:30 p.m.

ABSTRACT: The SAS DATA step has the reputation for being one of the best data manipulators in the IT world. While the author of this paper agrees with this statement, it is possible to go beyond the capabilities of the DATA step by using SAS Macro functions. It would be difficult to show the full power of these Macro Functions in an hour presentation, so, this paper will look at a few commonly used Macro Functions and compare and contrast them to DATA step functions. These functions can be used not only to manipulate data, but to manipulate entire programs as well.

(12) Longitudinal Data Techniques: Looking Across Observations

Ron Cody

10:20 a.m.

ABSTRACT: One of the most difficult tasks for a SAS programmer is to perform operations across multiple observations. For example, you may have a data set of patient visits, with a variable number of visits per patient and the data for each visit stored in a separate observation. Some of the techniques for working with such data include the RETAIN statement, FIRST. and LAST. logical variables, the LAG function, and the use of multiple SET statements (each with a separate FIRSTOBS= option). Other techniques for summarizing data for each patient (such as the number of visits, the mean and median of some variables) involve procedures such as PROC FREQ, PROC MEANS and PROC UNIVARIATE to output summary data sets. This talk will demonstrate and discuss these techniques.

(13) A Survey of Some useful SAS Functions

Ron Cody

1:30 p.m.

ABSTRACT: SAS Functions provide amazing power to your DATA step programming. Some of these functions are essential—some of them save you writing volumes of unnecessary code. This talk covers some of the most useful SAS functions. Some of these functions may be new to you and they will change the way you program and approach common programming tasks.

The majority of the functions described in this talk work with character data. There are functions that search for strings, others that can find and replace strings or join strings together. Still others that can measure the spelling distance between two strings (useful for "fuzzy" matching). Some of the newest and most amazing functions are not functions at all, but call routines. Did you know that you can sort values within an observation? Did you know that not only can you identify the largest or smallest value in a list of

variables, but you can identify the second or third or nth largest of smallest value? A knowledge of the functions described here will make you a much better SAS programmer.

(14) What's New in JMP Version 11?

Melodie Rush, SAS Institute

3:00 p.m.

ABSTRACT: From data import to presentation, JMP® 11 extends its abilities to help you investigate and understand your data - visually and interactively. See these new tools and enhancements, plus more.

- *Graph Builder* - Start with a blank slate, and then drag and drop variables to see patterns and trends -- expected and unexpected.
- *Excel Windows Import Wizard* - Import multiple workbooks and preview settings before you import, stack data in a way that works best for JMP analyses; automatically handle Excel merge cells without post-processing data in JMP; and use and auto-generate JSL scripts to refresh data when the Excel file is changed.
- *Columns Viewer* - Get a quick view of parameters associated with large, complex or wide data tables.
- *Data Filter* - From a data table during the analysis workflow, filter, examine, analyze and report subsets of your data interactively.
- *Interactive HTML Reports* - Save reports so colleagues can explore the data on a computer or mobile device without JMP.
- *Transform Variables* - With a single click, transform data while staying in the analysis flow.
- *Generalized Regression Modeling (JMP Pro)* - Use this new class of modeling techniques to build predictive models for complex data that may have a large number of predictors.

Support You Can Count On

The SAS Customer Loyalty team is your liaison to a wealth of support services and resources.

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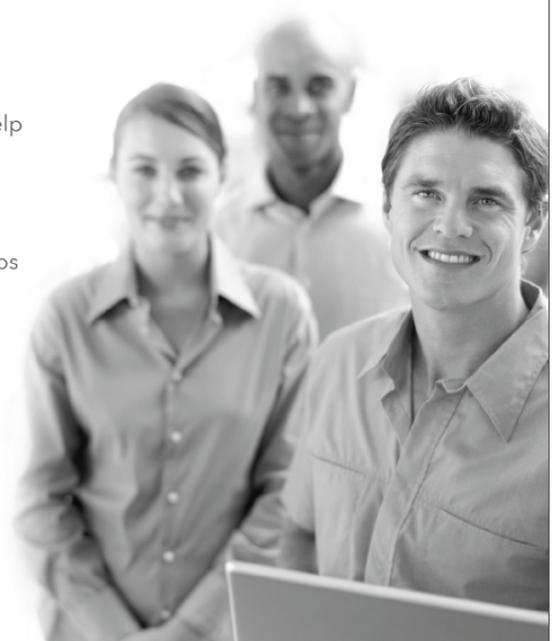
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We support your relationships within SAS, help you create partnerships in the user community and connect you with the right resources.

Empower

We help you get the most from your software investment.

 Learn more at support.sas.com/promise and contact us at support.sas.com/customerloyalty.



Biographies

Speakers:



Rick Langston is the manager of the Core Systems Department at SAS Institute. His department is responsible for core features of the SAS System, such as formats, functions, macro, access methods, setinit, options and the core supervisor. Rick has been a SAS user for 37 years, and has been working at SAS for 34 years.



Vince DelGobbo is a Senior Software Developer in the Metadata and Execution Services group at SAS. This group's responsibilities include the SAS/IntrNet Application Dispatcher and SAS Stored Processes. He is involved in the development of new Web- and server-based technologies, as well as integrating SAS output with Microsoft Office. He was also involved in the early development of the ExcelXP ODS tagset. Vince has been a SAS Software user since 1982, and joined SAS in 1992.



Melodie Rush is the Statistician for the Customer Loyalty Team at SAS Institute. Melodie received both her B.S. in Statistics and her Masters in Science of Management with a technical option in Statistics from North Carolina State University. Before joining SAS in 1996, Melodie worked for Research Triangle Institute as a Statistician. Her responsibilities included implementing national and local surveys of various topics, such as health care, employee benefits, and drug abuse. As part of her research, she has published work for both the American Statistical Association and the American Public Health Association. After joining SAS, Melodie has developed presentations and methodology for doing many types of analysis, including data mining, forecasting, data exploration and visualization, quality control and marketing. She has spent the last 15 years helping companies identify and solve problems in each of these analytical areas.



Gary Ciampa is employed with SAS Institute Inc, Cary, NC and joined SAS in 1995. He has served in various roles and capacities throughout his career to include development and product manager for the SAS/C and SAS/C++ Compiler suite of products, development manager for SAS on z/OS and UNIX environments, and development manager for a series of Enterprise Systems Management products. Currently, Gary serves as a Senior Software Development Manager in the Managed Services Practice with the Analytic Solutions OnDemand organization. Prior to joining SAS, Gary worked with IBM for 13 years, to include TCP/IP development in Research Triangle Park, NC and worked at IBM facilities in Manassas, VA and Burlington, VT. Gary also served in the Air National Guard and retired with 24 years of services from the North Carolina National Guard in 2003.



Arthur Li holds an M.A. in Mathematics from the California State University, Fullerton, and an M.S. in Biostatistics from the University of Southern California. Currently, he is a Biostatistician in the Department of Information Science at the City of Hope National Cancer Center in Duarte, California. In addition, Arthur developed and taught a SAS programming course, "Programming in Modern Statistical Software," in the Department of Preventive Medicine at U.S.C. for the past four years. He has also given many presentations at various SAS conferences in the past few years.



Ben Cochran, is formerly an instructor with SAS Institute for 11 years, who is certified to teach over a dozen SAS courses. Ben is now an independent consultant and trainer who is also a SAS Institute Quality Partner. Before joining SAS Institute, Inc. in 1985, Ben initially honed his teaching skills in the academic arena as a college professor for nine years.



Dr. Ron Cody was a Professor of Biostatistics at the Robert Wood Johnson Medical School in New Jersey for 26 years and is now a private consultant and writer. He has been a SAS user since the late 70's and is the author of *Applied Statistics* and the *SAS Programming Language* (fifth edition). He has also authored the following books with SAS Press: *Learning SAS by Example: A Programmer's Guide*, *SAS Functions by Example*, 2nd edition, *Cody's Data Cleaning Techniques*, 2nd edition, *Longitudinal Data and SAS: A Programmer's Guide*, *SAS Statistics by Example* and *The SAS Workbook*, and *Cody's Collection of Popular Programming Tasks and How to Tackle Them*.

Organizers:



Robert Solik, Registrar, is an Actuarial Technician at Global Atlantic. He has been using SAS for the past 2 years.

Audrey Yeo, Registrar, is a Senior Analytical Consultant at Athene USA. She has been using SAS for the past 8 years, mainly for data management and data reporting.



Robin High, MBA, MA, Conference, Co-Chair has been a Statistical Coordinator at the University of Nebraska Medical Center in Omaha, NE since 2008. His prior experience includes statistical consulting with civil engineering firms in Austin, Tx, researchers at Oregon State University, and for nearly 15 years assisted graduate students and faculty at The University of Oregon. His areas of expertise include linear and generalized linear mixed models, survival analysis, design of experiments, and graphical interpretation of data. He has over 25 years' experience with the SAS System.



Anne O'Keefe, MD, MPH Conference Co-Chair, is the Senior Epidemiologist with the Douglas County Health Department, in Omaha, Nebraska. She has over 20 years of SAS experience in federal, state, and local public health agencies.



John Xu, Mid West SAS Users Group Liaison & President of Iowa Users Group, is the Director of Consulting of 1ST Consulting LLC, a West Des Moines based consulting company specialized in SAS related services. He has over 20 years of SAS experience in Financial, Insurance, Marketing, Government, Education, and Pharmaceutical industries. John had served on Mid West SAS Users Group board for 10 years. He is currently coordinating the activities of Iowa SAS Users Group.



NEBSUG
Nebraska SAS®
Users Group

You are invited to get involved!

**Join Us at
12:30 pm for
NEBSUG
Volunteer Meeting**

SAS Training Classes

- **Date and Course Title**

5/21/14 (Wednesday)

Manipulating Data with SAS® Functions

5/22/14 (Thursday)

Manipulating Data with DO Loops and SAS® Arrays

- **Instructor**

Ben Cochran

- **Registration fee**

\$380 per course for early registration

* Add \$20 per course for late registration after Friday, May 9, 2014

- **Registration link**

Online registration is preferred. You may use the link below:

<https://www.regonline.com/NEBSUG2014>

You may also complete the registration form in this announcement and mail it with a check. We accept both business and personal checks.

- **Course Format**

Each course is scheduled for a full day. The courses are mostly lecture and demonstrations.

- **Location** Room 1011, College of Public Health, 519 South 40th Plaza Circle, Omaha, NE 68198-4355

- **Direction and Parking**

From I-80 head North at the 42nd Street exit for 2.2 miles; turn Right (East) on Dewey Ave (first stop-light past the pedestrian bridge over 42nd St. at UNMC);

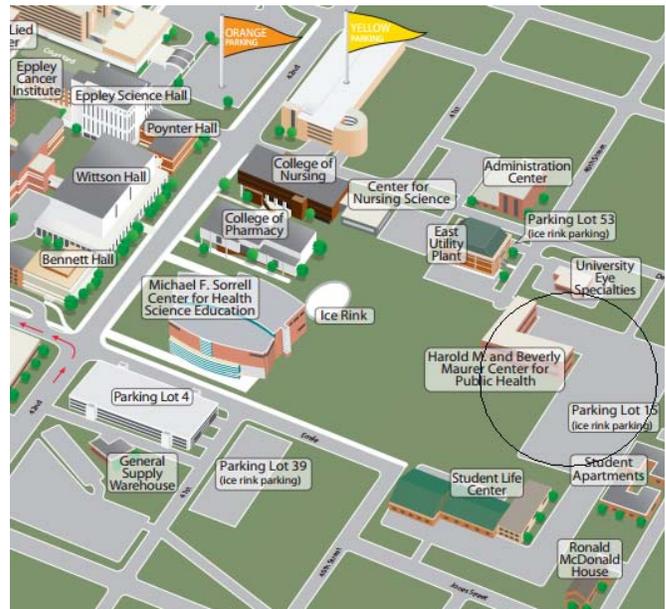
After 2 blocks, turn Right (South) on 40th St. for 1/2 block.

Turn left as you approach the circle turn-around and park in the far east end of the large parking lot (student section).

Enter the CoPH building (Harold M. and Beverly Maurer Center for Public Health) through the door on the lowest level on the southeast corner of the building. Room 1011 is immediately to your left

- **Map**

<http://www.unmc.edu/wwwdocs/unmccampusmap.pdf>



- **Class supplies**

Lecture notes, notepad, pen, etc. are provided. You may bring your own computer with SAS although it is not required. Lunch is provided.

- **Special Offer**

50% discount to full time students and individuals who are in between jobs (subject to availability, approval and verification). Some scholarships are available for full-time students. Those granted scholarships will receive a total of 90% off regular price and pay \$38 for a course.

- **Cancellation Policy for the Class**

A full refund minus a 10% processing fee can be made if requested by May 9, 2014. Substitution is accepted with advance notice anytime. There is no charge for substitution. Please email your cancellation notice to

omaha1day@yahoo.com.

- **Notice**

Part of training registration fees from these SAS classes will be used for the SAS conference. Thanks for your support!

We Need Your Help: Volunteer Signup Form

This conference is made possible by volunteers like you. If you would like to help with this conference, please complete the form below and email it to the conference chairs at omaha1day@yahoo.com with subject line: NEBSUG Volunteer. Volunteers will receive a gift and/or reduced registration fee. Thanks!

Name _____

Phone _____

Email _____

Please rank the volunteer work in which you are interested:

Registration Coordinator.

Need to come early at 7:15 am on May 20 (Conference day) to conference site to set up registration table and check attendees in.

Session Coordinator.

Direct attendees to the proper conference room. Hand out paper if available. Remind speaker about time left. Introduce speaker if asked by Section Chair. Minimum of half day in a session required.

In Hand-On Workshop, help attendee resolve any technical issue.

Liaison

Promoting conference within your own company by distributing the conference announcement, coordinating group registration etc.



midwest sas users group

2015 Conference

**Hilton Omaha
October 18-20, 2015**



Course Description

(1) Manipulating Data with SAS® Functions

Wednesday, May 21, 2014

Overview:

This one day workshop explores the area of data manipulation and shows you how to accomplish this through using the myriad of functions provided by the SAS System. It has been said that as much as 90% of a project's time is spent on getting the data 'right' or manipulating the data. The need for data manipulation is great and cannot be overlooked. This course includes some of the newer functions that came out in SAS9 and shows you how to use them to manipulate character values as well as numeric values, including SAS dates. Examples of using statistical functions are also included in this course.

There is a section on using SAS functions to find certain attributes about SAS datasets. The course concludes with a section on functions that are especially useful such as the COMPRESS function.

Audience:

Beginning to intermediate users of SAS software who want to gain a deeper understanding of the art of transforming and manipulating data. This course focuses on the DATA step and goes into a great deal of detail on it's inner workings.

Prerequisites:

This seminar is most appropriate for students with at least six months worth of experience using the SAS System, or who have completed a fundamentals course in SAS programming.

Seminar Topics

Introduction to Data Manipulation

- The Structure of SAS Data Sets
- Processing Data with the SAS System.

SAS Functions

- Introduction to Functions
- Manipulating Numeric Data
- Manipulating Character Data
- Data Conversion
- Other Very Useful Functions
- Determining Data Set Attributes

Course Descriptions

(2) Manipulating Data with DO Loops and SAS® Arrays

Thursday PM, May 21, 2014

Overview:

This one day workshop explores the area of data manipulation and shows you how to accomplish this through using arrays and DO Loops within the SAS DATA step. The course begins with a section on DO Loops and explores many different DO Loop structures. Many examples are used to illustrate how to create data using DO Loops. Many examples show how to incorporate SAS functions into the DO Loop syntax. You may need a DO Loop that executes for a fixed number of cycles, or a DO Loop that executes until a certain condition is met. The section on DO Loops concludes with a look at Table Lookup operations.

The section on Arrays covers many different examples. After examining the syntax of the ARRAY statement, a series of examples on doing calculations, data conversions, and transposing SAS datasets is shown. Next, doing Table Lookup operations with SAS Arrays is discussed. This section concludes with a look at Multidimensional arrays and special functions that can make writing Array applications a little more elegant.

Audience:

Beginning to intermediate users of SAS software who want to gain a deeper understanding of the art of transforming and manipulating data. This course focuses on the DATA step and goes into a great deal of detail on it's inner workings.

Prerequisites:

This seminar is most appropriate for students with at least six months worth of experience using the SAS System, or who have completed a fundamentals course in SAS programming.

Seminar Topics:

Iterative Processing

- Introduction to DO Loops
- Reading Data DO Loops
- Generating Data With DO Loops
- Other Useful DO Loop Applications

SAS Arrays

- Introduction to Arrays
- Array Applications
- Multidimensional Arrays
- Special Array Functions

Conference & Class Registration

NEBRASKA SAS® USERS GROUP, THE 2014 OMAHA ONE-DAY CONFERENCE

Tuesday, May 20, 2014

Please use the online registration system at <https://www.regonline.com/NEBSUG2014> if possible

Online registration will open on Monday, 3/31/14

Or, you may e-mail the completed registration form to: omaha1day@yahoo.com. Please make the check payable to **Mid West SAS Users Group** and mail it to:

Audrey Yeo, 5465 Mills Civic PKWY, Unit 441, West Des Moines, Iowa 50266.

Email: omaha1day@yahoo.com Phone: (678) 208-9605

Name: _____

Company: _____

Title: _____

Address: _____

City: _____ State: _____ ZIP: _____

E-mail (required): _____ Phone: _____

- | | | | | |
|--------------------------|-------|--|---------|-----------|
| <input type="checkbox"/> | \$80 | SAS Conference | 5/20/14 | Tuesday |
| <input type="checkbox"/> | \$380 | Manipulating Data with SAS Functions | 5/21/14 | Wednesday |
| <input type="checkbox"/> | \$380 | Manipulating Data with DO Loops and SAS Arrays | 5/22/14 | Thursday |

_____ Amount enclosed *

Note: Group registration of 10+ receives 20% off automatically **.

Student registration fee is \$10 for conference and \$190 per class ***.

Add \$30 for late conference registration and \$50 for late class registration after Friday May 9,

Registration Cancellation Policy:

Refund is provided with a processing fee (\$20 for conference and \$50 for class) if requested by May 9, 2014. No refund after that, but substitution is accepted with advance notice. There is no charge for substitution.

Nebraska SAS Users Group reserves the right to cancel the class at any time and for any reason with a full refund.

Please email your cancellation request/change notice to omaha1day@yahoo.com.

* A confirmation e-mail will be sent within 3 days. An invoice is available upon request.

** For multiple registrations, you may (1) submit one registration form per attendee, or (2) submit one registration form for the contact person, plus a list of additional attendees' name, e-mail address, and phone number.

*** Please use registration code **STCONF** for online registration. And email a web link or a copy of student ID to omaha1day@yahoo.com for student status verification.

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- Health Care
- Marketing
- Pharmaceutical

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