# PhilaSUG newsletter

## Fall 2019 Meeting Announcement

## PhilaSUG Fall 2019 Meeting
## Tuesday October 22, 2019

The West Chester University Department of Mathematics and Applied Statistics Program is pleased to partner with SAS for this meeting. The meeting will be held at the West Chester University Graduate Business Center, 1160 McDermott Drive West Chester PA 19380, located approximately 20 minutes from the main campus of West Chester University in the Greenhill Corporate Park, near the intersections of Boot Road and Route 202. A map is available later in the newsletter.

PhilaSUG meeting and membership registration will begin at 12:15 P.M. The meeting will commence at 1 PM. Membership for the year is $30. All meetings are free for members, full time students. As a courtesy for hosting this meeting student, faculty, and staff at West Chester University, will have their fees for this meeting waived. We accept cash, check (made out to "PhilaSUG"), or credit/debit card (this charge will show up on your credit/debit card statement as paid to "Michael Davis / PhilaSUG"). Receipts will be available at registration time.

PhilaSUG is aware of the problem that students face to attend professional meetings on limited budgets. Show your current student ID at the registration desk and this meeting will be free. We hope that students will take advantage of this offer to enhance their knowledge of SAS software and to network with local fellow SAS users.

### Agenda

We thank our host and the SAS Institute for providing lunch and break refreshments

| Time | Event |
|------|-------|
| 12:15-1:00 | Registration and lunch |
| 1:00-1:10 | Opening Remarks |
| 1:10-2:00 | Melodie Rush: Handling Missing Data in SAS® |
| 2:00-2:30 | Alex Chaplin: Add SGSCATTER, SGPLOTT, and SGPANAL Procedures to Your SAS Toolbelt |
| 2:30-3:20 | Jonas Bilenas: Using the New SURVEY Procedures From a Modeling Perspective |
| 3:20-3:35 | Break and refreshments |
| 3:35-4:05 | Alexandre Ginev: Adapting and Developing SAS Macro Tools |
| 4:05-4:55 | Melodie Rush: SAS® Modeling Best Practices |
| 4:55-5:15 | Open Forum, raffle, and closing remarks (You must be present to win) |

The presenters and the PhilaSUG Executive Committee will adjourn for dinner at a nearby restaurant when the meeting concludes. You are invited to join us. The location will be announced at the meeting.

## PhilaSUG Executive Committee

Michael Davis, President
Kajal Tahiliani, Secretary
George Laskaris, Membership Chairman
Amos Odeleye, Treasurer
Robert Schechter, Newsletter Editor, and Web Master

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| Jonas V. Bilenas | Max Cherny |
| Barry Cohen | Diane Foose |
| David Horvath | Mark Keintz |
| Amos Odeleye | Steve Rhoades |
| Haibin Shu | |

## Email Announcements



PhilaSUG-L is a low volume, announcement-only email notification service provided free of charge to all members who wish to subscribe. In order to sign-up for this service, you need only send a blank email message to: philasug-l-subscribe@yahoogroups.com. Note that you can subscribe as many times with as many different email addresses as you wish to have the email sent to; e.g., home and office.

## Host Sites Wanted

We continuously seek host sites for future PhilaSUG meetings. There is not a lot of work involved, and it is a great way to put your company on the local SAS map. We need your help with this. If your company would like to host a meeting, within reasonable geographic proximity to Philadelphia, PhilaSUG would be grateful if you would contact Michael Davis at **michael.davis@alumni.duke.edu.**

## Presenters Wanted

PhilaSUG seeks individuals who wish to participate actively in our meetings by presenting various SAS topics in the form of delivered papers or posters. This is a great way to share your knowledge with others, to brush up your presentation prior to delivery at a regional or national SAS conference, and to gain confidence as a speaker. If this is of interest to you, please use the online abstract submission form found on our website. Presentations can be from a 10-minute "coders corner" to 50 minutes.

## PhilaSUG Web Site

Our site on the World Wide Web always contains the latest information concerning upcoming meetings, SAS training and seminars, links to SAS related hot topics, and local SAS job opportunities.
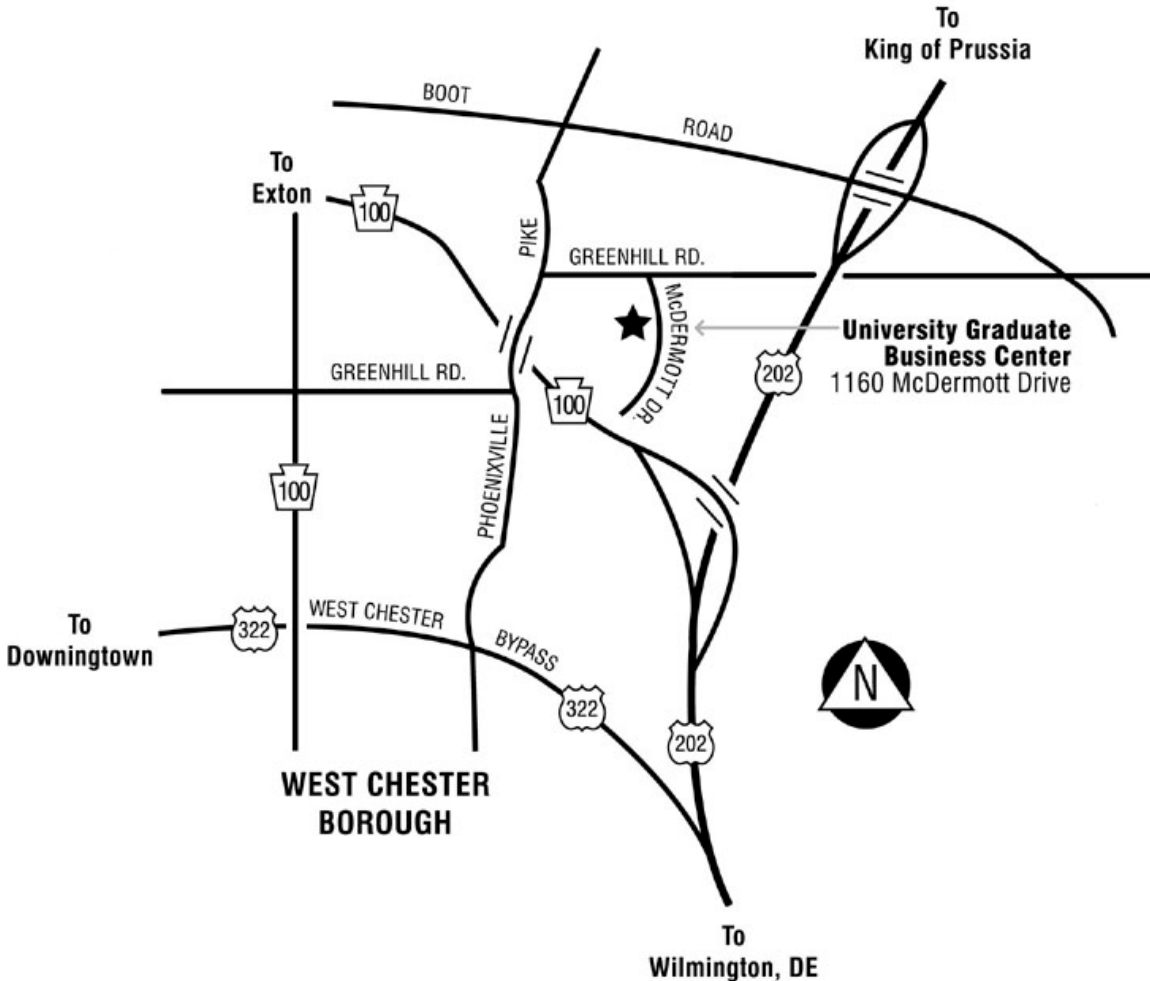


Visit us regularly at: http://www.PhilaSUG.org

## Directions to Meeting Site

**West Chester University Graduate Center, Room 126**
**1160 McDermott Drive West Chester PA 19380**

Located approximately 20 minutes from the main campus of West Chester University in the Greenhill Corporate Park, near the intersections of Boot Road and Route 202. Click on the map below for Google directions.



All directions listed below assume you are coming to West Chester via Route 202.

♣ Directions: **From Southbound 202** (heading toward West Chester) there are two options: ♣ Option 1 - Exit at Boot Rd. and make a left at the traffic light at the end of the off ramp. Follow Boot Rd. a short distance to the second traffic light (Greenhill Rd.). Make a right onto Greenhill Rd. and follow approximately one-half (1/2) mile until you see McDermott Dr. on the left. Turn onto McDermott Dr. and the building is the third building on the right. ♣ Option 2 - Exit at Boot Rd. and make a right at the traffic light at the end of the off ramp. Follow Boot Rd. for one-half (1/2) mile to the next traffic light. Make a left at the traffic light (Phoenixville Pike). Take Phoenixville Pike about three-quarters (3/4) of a mile until you come to Greenhill Rd. Turn left onto Greenhill Rd. and go a short distance until you see McDermott Dr. on the right. Turn onto McDermott Dr. and the building is the third building on the right.

♣ Directions: **From Northbound 202** (heading toward King of Prussia) there is one easy way: ♣ Exit at Boot Rd. and make a right at the traffic light at the end of the off ramp. Make a right at next traffic light (Greenhill Rd.). Take Greenhill Rd. about one-half (1/2) mile until you see McDermott Dr. on the left. Turn onto McDermott Dr. and the building is the third building on the right.

## About Our Host

**WCU**
**WEST CHESTER UNIVERSITY**

West Chester University offers high-quality undergraduate and graduate degrees, as well as certification and certificate programs, in more than 100 subject areas. Its Master of Science in Applied Statistics is a state-of-the-art program that brings together statistical theory, computer programming, and scientific research. This degree provides preparation for immediate employment in a variety of high-paying industry positions, as well as doctoral study in applied statistics or a related field.

Students benefit from the following:
- The integration of SAS into virtually every course
- Evening classes geared towards the working professional
- A flexible curriculum that allows one to explore various concentrations
- Visiting lectures from prominent statisticians on topics of current interest in applied statistics
- Pursuing intensive study on a topic of interest with a faculty member through the optional thesis track
- Optional supervised, paid internships at local companies

To learn more please visit us online at
www.wcupa.edu/appliedstatistics

## Joint Statistical Analysis Certificate with SAS®

West Chester University Applied Statistics has become a Preferred Academic Program of SAS Statistical Software. The Graduate Program in Applied Statistics now offers eligible students the opportunity to earn a SAS joint certificate. Because today's jobs depend upon your ability to analyze and interpret data, you need the knowledge and technical skills to make decisions that stand up to scrutiny from your supervisors, clients, and customers. A Master's in Applied Statistics combined with a SAS joint certificate provide you with the tools you need to be confident that you are backed by proven methodology, a solid plan, and strong data-driven assessments. The joint certificate recognizes your practical and theoretical knowledge and it confirms that you have the tools that you need to handle and analyze data/modeling problems for your organization.

For more information about the SAS Certificate, please see: http://support.sas.com/learn/ap/prof/certprog.pdf

## Thank You to Our Hosts

The PhilaSUG Executive Committee wishes to thank the Department of Mathematics, West Chester University for hosting this meeting. We would like to thank the following professors from the West Chester University for making the meeting possible: Randall H. Rieger, Ph.D., Professor & Director of the Graduate Program in Applied Statistics; and Scott McClintock, Professor, Department of Mathematics. We want to thank the SAS Institute for their support of this meeting. In addition, we wish to thank Mark Keintz and Robert Schechter of the PhilaSUG Executive Committee for their efforts to coordinate this meeting.

| Future Meetings and Events | Paper Abstracts |
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**Next PhilaSUG Meeting**

*PhilaSUG Winter 2020 Meeting*
**TBD,** but targeting mid March

SAS® GLOBAL FORUM

**SAS Global Forum, 2020**
March 29 – April 1
Washington, DC

Pharma SUG

**PharmaSUG 2020**
San Francisco, California -
Hilton San Francisco Union Square –
May 10 - 13, 2020

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**Handling Missing Data in SAS®**
*Melodie Rush, SAS Institute*

What do you do when you have missing values in your data? In SAS we have many ways to manage missing values. In this session we cover what are missing values, why and when missing values occur and how to manage missing values. We discuss functions, procedures and how different products deal with missing values.

*Melodie Rush is the Statistician for the Customer Loyalty Team at SAS Institute. Melodie received both her B.S. in Statistics and her Master's 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 datamining, 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.*

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**SAS® Modeling Best Practices**
*Melodie Rush, SAS Institute*

Identify and outline your business issue, question or desire, determining whether you want to predict or describe something. Determine the type of problem or question at hand. Identify the best modeling algorithm or algorithms for the business issue or requirement. Measure the effectiveness, performance or accuracy of your model. Apply these concepts in SAS.

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## Add SGSCATTER, SGPLOTT, and SGPANAL Procedures to Your SAS Toolbelt
### Alex Chaplin, *Bank of America*

SGSCATTER, SGPLOTT, and SGPANAL Procedures provide a range of graphical data visualization options to help any data analyst tell the story of the data. If you are a SAS EG user be aware that SAS EG generates graphs using PROC GPLOT which is the predecessor to PROC SGPLOT. To really bring your data alive you will need to be familiar with the expanded capabilities in PROC SGPLOT and introduce yourself to PROC SGPANEL.
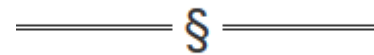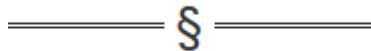
*Alex Chaplin has been using SAS® since 2007. He is a SAS Certified Base and Advanced SAS Programmer. Alex has over 25 years of experience in Information Technology working a range of roles from programmer to technical project manager across a range of industries including travel, manufacturing, chemical, retail and financial in the UK, Spain and the US.*

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## Using the New SURVEY Procedures From a Modeling Perspective
### *Jonas Bilenas, Banking Industry SME*

An introduction to the use of SURVEYSELECT, SURVEYREG and SURVEYLOGISTIC procedures to illustrate applications in modeling with sampled data. We will show how efficient it is to use SURVEYSELECT to generate samples, stratified samples, and uses in validations such as BOOTSTRAP and K-FOLD. A number of examples will be shown detailing the SURVEYSELECT procedure. We will then see examples on how to use SURVEYREG and SURVEYLOGISTIC when you have sampled data to calculate the correct standard errors and p-values for using sampled data for Ordinary Linear Least Squares and Logistic Regression. Yes, if you use PROC REG or PROC LOGISTIC, with a WEIGHT statement for sampled data you still have it wrong.

*Jonas Bilenas has been using SAS for more than 33 years in the field of Consumer Risk Management. He has presented at many local, Regional, and International User Groups and is currently active in the PhilaSUG Executive Committee. He has also authored the SAS Press Book titled, "The POWER of PROC FORMAT."*

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### Adapting and Developing SAS Macro Tools

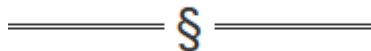*Alexandre (Alex) Ginev, West Chester University*

I hope to demonstrate and discuss examples of powerful, commonly used SAS Macro language techniques in the context of upgrading and developing an available MAED (MedDRA Adverse Event Diagnostics) SAS macro collection for AE reporting and exploratory statistical analysis. Those methods include:

1. Various ways to create, validate and use of macro lists
2. Capturing and validating user input as macro variables with %WINDOW - %DISPLAY
3. Examples of use of iterative (%do-%end) and conditional (%if-%then-%else) macro function logic: within DATA steps, SQL queries and PROC statements / in combination with other (regular) SAS keywords and statements.
I will show and comment on many snippets of SAS code on the slides.

*Alexandre (Alex) Ginev recently graduated with a Master of Science degree in Applied Statistics from West Chester University of Pennsylvania, a Master of Science degree in Earth Sciences (Geochemitry) degree from University of Sofia "St. Climent Ohridsky", Sofia, Bulgaria, Graduate Certificate (French DESS Diploma) in "Mining Geostatistics" from MINES Tech, Paris, France / Center of Geostatitics.*

*His current and primary focus is on exploring and implementing statistical analyzes for predictive and explanatory (research) modeling – namely, generalized linear models such as linear regression, ANOVA, mixed (including random effects), logistic regression, Poisson regression, time-to-event (Kaplan-Meier, survivor, parametric and Cox proportional hazard models) and other, as well estimations and statistical inferences from data of different nature and sources.*

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# Philadelphia Area SAS User Group (**Phila*SUG***)
# Membership Form

If you haven't submitted an attendance form, or already paid this year's dues, then to speed through registration complete this form (please print) and return it to the registration desk of any PhilaSUG meeting (do **NOT** mail it). Checks should be made payable to PhilaSUG. Our membership year runs from Jan. 1 to Dec. 31. Dues for the year are $30. As a courtesy for hosting this meeting, students, faculty, and staff of West Chester University are welcome to attend this meeting at no cost. Current full time students, showing a student ID are also welcome to attend this meeting at no cost. An attached business card helps legibility and is appreciated.

This is a ☐ new, ☐ renewal, or ☐ update / correction.

Check here if you are registering as a current full time student ☐

Name: _____

Affiliation: _____

Address: _____

_____

City: _____ STATE: ____ Zip: _____

Day Time Phone Number: (     ) _____ - _____

***Privacy Statement*** *- Local SAS User Groups are requested to share their membership/mailing list with SAS Institute on an annual basis. We respect your privacy and will never rent, sell or trade your personal information provided with any other group or individual and the information provided will only be used for PhilaSUG mailings. We will not share your name, address and email address with SAS unless you Opt In below.*

☐ Check this box (Opt In) if you agree to allow us to share *your* **name, address and email address** *with SAS*.

PhilaSUG-L is a low volume, announcement-only email notification service provided free of charge. By subscribing you'll be notified of the latest information about upcoming events, especially meeting announcements. By listing your email address below you will be added to the electronic mailing list, you can cancel at any time.

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**provider i.e., Yahoo, Gmail, Verizon, Comcast, etc.**

• ☐☐☐ **<= provider domain info i.e., com, org, ed, net, etc.**

(Be sure to clearly distinguish a dash from an underscore)