Getting Help with SAS

When learning anything new, there will always be places where you get stuck. Plenty of resources are available when this happens and you need help with SAS. This document provides some starting points for getting help with SAS. In each lab exercise, I will try to include references and additional resources as needed, specific to each topic to help you as you learn SAS.

1   Documentation

SAS documentation is essentially like an instruction manual for SAS and all its components. The bulk of SAS documentation is available online at
http://support.sas.com/documentation/onlinedoc/index.html. You can also access SAS documentation within SAS by following these steps.

1. With SAS open, click Help at the top of the screen.

2. Select SAS Help and Documentation from the Help menu.

3. Under the Contents tab, open (double-click) SAS Products.

4. Scroll down and open SAS/STAT.

5. Open the SAS/STAT User's Guide to view a number of introductory tutorials (e.g., Introduction to Regression Procedures) as well as folders with Procedure-specific help (e.g., The BOXPLOT Procedure).

SAS documentation is particularly useful when you need help with code syntax. For instance, if you need help writing the `MODEL` statement in `PROC ANOVA`, then locate the ANOVA procedure in the documentation using the steps above, click Syntax and then click Model. Now you have a complete explanation of all possible code for this statement.

The other nice thing about SAS documentation is that it provides examples with real data. If you want to look at examples of ANOVA in SAS, then locate the ANOVA procedure in the documentation, and click Examples. These examples often provide data and code that you can run yourself, as well as output and results.

2   Books

There are a number of books available on learning and using SAS - a few are listed below. Note that none of these are necessary for learning SAS in my recitation section. I do not anticipate any student needing one of these books, but there are always those who prefer optional supplemental resources. If you're interested in any of these (or others), check the library first.

- <u>The Little SAS Book: A Primer</u>, by Lora Delwiche, Susan Slaughter.

- <u>Mastering the SAS System</u>, 2nd Edition, by Jay Jaffe, Van Nostrand Reinhold.

- <u>Quick Start to Data Analysis with SAS</u>, by Frank DiIorio, Kenneth Hardy.

- <u>How SAS works: a comprehensive introduction to the SAS System</u>, by P.A. Herzberg.

- <u>Applied statistics and the SAS programming language</u>, by R.P. Cody.

3   Websites

There are also a variety of websites dedicated to learning SAS and cataloging SAS resources available on the Internet. Here are a few that I came across in a Google search that seemed helpful at first glance. There are lots more out there!

Phil Spector's Introduction to SAS:
http://www.stat.berkeley.edu/classes/s100/sas.pdf

Brian Yandell's Introduction to SAS:
http://www.stat.wisc.edu/~yandell/software/sas/intro.html

Michael Friendly's Guide to SAS Resources on the Internet:
http://www.math.yorku.ca/SCS/StatResource.html#SAS

4   UNC ITS Help Group

The ITS group at UNC has a number of helpful documents regarding various aspects of SAS programming. Here are a few links to help you get started.

Introduction to SAS: https://help.unc.edu/4433

FAQ's on SAS Programming: https://help.unc.edu/6213

Efficient Programming in SAS: https://help.unc.edu/4419

Brief Introduction to SAS Graphing Techniques: https://help.unc.edu/809

ITS Search Results on SAS: https://help.unc.edu/Article/results?ssKeyword=SAS

5   Google

Finally, if you're facing a very specific problem with your code, just try Googling it! I know it's not very fancy or technical, but I use it all the time. It's often quicker than searching documentation, especially if the problem is hard to describe, or is not easily categorized. In your search, include words like SAS and the `PROC` name as well as a brief description of what you're trying to do.