Introduction to SAS for Clinical Research (M19-510)

Course Description
This 1-week, 1-credit hour course is designed to introduce medical students, clinicians and health researchers to the SAS programming environment. Students will learn how to operate SAS, import external data, create SAS data sets, create, format and manipulate variables, and export data and results. Each session will consist of a combination of lecture and practical hands on exercises. Upon completion of this course, students will have obtained a basic understanding of the SAS environment. Prerequisite: None.

Course dates 8/17/15-8/21/15, 9am-12pm

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Course Competencies
- Open & navigate the SAS statistical software
- Understand the SAS library concept, including temporary and permanent datasets
- Understand the importance of using syntax
- Know how to import/export, open/save data within SAS
- Troubleshoot problems and interpret errors in logs

Course Requirements
Students will be evaluated based on class participation, homework assignments and the cumulative exercise demonstrating mastery of all the concepts taught earlier in the week. Students are REQUIRED to have SAS installed on their personal laptops by 8/1/14. Students without a working copy of SAS on their laptop will be unable to complete the course.

Software
All Students are required to have SAS 9.3 (or higher) available on their laptop for class. If you do not have it already you need to contact the Dept. of Surgery IT at 314-362-4540 and schedule a time to have it installed for free. The 32bit version of SAS is recommended to ensure optimum compatibility.

Textbooks There are no required textbooks for this class, however the "The Little SAS Book" is highly recommended for all levels of SAS users.

  Delwiche & Slaughter. *The Little SAS Book; A Primer, Fifth edition.* 2012. ISBN-10:1612903436

Attendance Class attendance is required. An unexcused absence during this week long course may result in a lowered grade. Do not enroll if you have absences already planned.

Homework Considering the short length of the course, assignments will be handed out each evening covering basic aspects on that day's material. Assignments are due the following morning at the beginning of class.

Grading Class Participation (10%) | Homework (70%) | Final Assignment (20%)

Schedule *(Tentative)*

Day	Topics
1	• Brief discussion about data and data types • Discuss importance of syntax, reproducibility, using comments • Opening SAS, the SAS environment, etc. • Defining libraries, temporary/permanent datasets
2	• Importing/opening/exporting/saving data • Format and label data
3	• Creating and recoding variables • Missing values
4	• Basic descriptive statistics and diagnostic procedures
5	• Course review, troubleshooting errors and final exercise

Resources

http://www.ats.ucla.edu/stat/sas/notes/default_93.htm

http://www.amazon.com/The-Little-SAS-Book-Edition/dp/1612903436