

STA5067, Advanced Data Management and Analysis with SAS

Instructor: Dr. Dan McGee (dmcgee@fsu.edu)
Grader: TBA (See Blackboard Page)
All contact Info on Blackboard (**Instructor Info tab**).

Prerequisites: **STA 5066 is a required prerequisite** all material from that course is assumed known.

Course Materials: All course materials are online, see course Blackboard page for link.

Important Dates: The due dates for all homework as well as the dates of the midterm exams will be posted on Blackboard under the assignments content area on the course Blackboard page.

Textbook: There is no required text. The following books are good resources:

SAS Certification Prep Guide, Advanced Programming for SAS 9, Third Edition.
Prairie K: The Essential PROC SQL Handbook for SAS Users. SAS Publishing.
Burlew M: SAS Macro Programming Made Easy. Third Edition. SAS Publishing.
Wicklin R: Statistical Programming with SAS/IML Software. SAS Publishing

Some online resources are provided at the end of this document.

Accessing SAS Software: For this course we will use SAS On Demand for Academics. Students who have taken STA 5066 should already have a SAS profile. All programming will be done using a browser-based interface to the SAS cloud. To enroll in this course, just point your browser to the following line (your SAS profile is required):

<https://odamid.oda.sas.com/SASODAControlCenter/enroll.html?enroll=ba3c159c-253f-4a95-826c-a77d374ce345>

This "enrollment" will allow access to course data.

NOTE: Cloud maintenance is occasionally unavailable for part of the time on weekends. So **do not wait until the last day** to do homework assignments. "The cloud was unavailable," is not an acceptable reason for late submission.

Homework: All homework must be uploaded to Blackboard. Unless otherwise noted, assignments require that you submit only the programs that produce the output included in the assignment. **All homework materials must be assembled into a**

single file and this single file should be submitted to the assignment posted on the course Blackboard page.

Homework Assignments may be discussed with other students (including using social media) but each student is required to write and assemble the programs required for the homework assignment on their own.

Questions about homework grades should be addressed to the course TA.

Homework Grading:

Late homework will be penalized 20% and no credit will be given for homework submitted more than one week after the due date.

Course Objectives: Upon completion of this course students will be able to manage data using SQL, the macro facility, IML in the SAS system.

Course Description: This course provides an overview of advanced topics for managing and analyzing data using SAS. It will focus on SAS's "other languages". We will cover as many of the following topics as time permits:

1. Introduction to data base models.
2. Proc Sql the language of the relational data model.
3. The Macro Facility in SAS.
4. SAS IML (Interactive Matrix Language)

Grading: The final course grade will be based on homework (60%), and tests (two midterms (20% each)). Letter grades are based on the following scale.

A	A-	B+	B	B-	C	D	F
95+	90-<95	85-<90	80-<85	75-<80	70-<75	<70	<60

Tests: There will be two tests, one on Proc SQL and one on the Macro Facility. The tests will be scheduled after these topics are completed. **The tests are computer generated, online, and involve multiple choice, single answer, etc.**

Course Grade: The course grade will be based on homework (60%) and exams(40%).

Academic Honor Code: All students are expected to uphold the Academic Honor Code. The Academic Honor System of the Florida State University is based on the premise that each student has the responsibility to:

- Uphold the highest standard of academic integrity in the student's own work.
- Refuse to tolerate violations of academic integrity in the University community.
- Foster a high sense of integrity and social responsibility on the part of the University community.

Students with Disabilities: Students with disabilities needing academic accommodations should do the following during the first week of class:

Register with and provide documentation to the Student Disability Resource Center.

Bring a letter to the instructor from SDRC indicating that you need academic accommodations.

For more information about services available to FSU students with disabilities, contact the Assistant Dean of Students: sdrc@admin.fsu.edu, Disabled Student Services, 08 Kellum Hall, Florida State University, Tallahassee, FL 32306-4066, (850)644-9655.

Some online resources:

A complete listing of online help for SAS 9.4 (Probably more than you want):

<http://support.sas.com/documentation/94/>

A new addition to SAS is SAS Analytics U. Numerous tutorials may be found on YouTube at:

https://www.youtube.com/playlist?list=PLVBcK_IpFVi9cajJtRel2uBLbtcLz-WIN

Numerous blogs covering different aspects of SAS are available at:

<http://blogs.sas.com/content/>

A good resource for many SAS topics is often the UCLA web site:

<http://www.ats.ucla.edu/stat/sas/>

Documentation SAS formats and informats:

<http://support.sas.com/documentation/cdl/en/leforinforref/64790/HTML/default/viewer.htm#titlepage.htm>

Documentation, SAS Procedures:

<http://support.sas.com/documentation/cdl/en/allprodsproc/67392/HTML/default/viewer.htm#titlepage.htm>

Documentation, SAS Functions and Call Routines:

<http://support.sas.com/documentation/cdl/en/lefunctionsref/67398/HTML/default/viewer.htm#titlepage.htm>

SAS Macro Language Reference (Online Book)

<http://support.sas.com/documentation/cdl/en/mcrolref/68140/HTML/default/viewer.htm#titlepage.htm>

SAS SQL Procedure (Users Guide)

<http://support.sas.com/documentation/cdl/en/sqlproc/65065/HTML/default/viewer.htm#titlepage.htm>

SAS DS2 Language Reference

<http://support.sas.com/documentation/cdl/en/ds2ref/67313/HTML/default/viewer.htm#titlepage.htm>

SAS IML Users Guide:

<http://support.sas.com/documentation/cdl/en/imlug/67502/HTML/default/viewer.htm#titlepage.htm>

Do Loop Blog (a blog that mainly deals with IML):

<http://blogs.sas.com/content/iml/>