Marketing 5253, Spring 2016
Advanced SAS Programming for Database Marketing
Section 503

SYLLABUS

Instructor: Miriam McGaugh, PhD   Email: miriam.mcgaugh@okstate.edu
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Office Phone: 405-833-7073
Lab Videos Posted: Thursday afternoons

Course Description:
The goal of this class is for students to learn more advanced SAS techniques allowing students to create more efficient and powerful SAS programs. This course is designed to help students gain a working knowledge of advanced SAS programming and data manipulation. Students will learn to use SQL and Macro within SAS programs. All work in this class will be conducted in the SAS windowing environment and will help students prepare for the SAS Advanced Programming Certification Exam.   Please see the tentative schedule for topics to be covered in this class.

Communication: Questions will arise throughout the semester and having a communication plan will help everyone in obtaining timely answers. Unless otherwise noted in an email, my office hours will be as listed above. Should you have questions regarding SAS programming, in-general questions, or anything regarding the exercises, please post those to the appropriate folder on the D2L discussion board. I check the Discussion Board once a day. If it something of a personal nature or something specific about a grade or homework, please email those to me directly at the email address above. I will try to respond to emails within 24 hours (usually quicker than that). There may be occasions where we need to walk through a process a little more in-depth or have a personal conversation. When this is needed, I will set up a phone call or Skype conversation at a convenient time for both parties. This option is open to anyone, even Stillwater based students, but Stillwater students are encouraged to visit me during office hours. Should something change throughout the semester (i.e., I am traveling out of town, bad weather, or office hours are changed), I will notify everyone by email as soon as possible.

Required Text:
There is **no required textbook** in this class. I will primarily use SAS training materials, chapters from reference books, readings off the web, cases, etc. in this class.

Course Format:
The class will be conducted using pre-class readings and videos and hands-on practice exercises. There will be a weekly lab class for MKTG 5253-001 (Stillwater based class) that will focus on hands-on practice and review (lab work). MKTG 5253-503 will not come to the lab class but students will be expected to view the weekly lab video posted on Thursday afternoons.

Lecture videos will be available via D2L in streaming video. Other formats may be available based on need (downloadable zip file and podcast). Lecture videos average around 45 minutes in length per chapter.

SAS programming manuals and video lecture links are available on the D2L Contents tab by week of class. Each week with material will have sections for video links, manuals, exercises, and solutions. Starting in week 2, material will not be available until video lectures are viewed or a quiz from the previous week has been completed. For example: week 1 material is available on the Contents tab at the start of the semester. The quiz for week 1 will be made available after the videos for week 1 have been viewed. After the week 1 quiz is completed then the week 2 materials will be visible within the Contents tab.

 All students are expected to participate in all aspects of the class. Online discussions can provide everyone with valuable tips and techniques to common problems. One thing I do not want is a string of postings with little to offer on the topic (i.e., Thank you, ditto, me too, etc.). If you are responding to a post, please make it courteous and helpful. Do not type in all caps unless it is within a program or your classmates will think you are mad about something that was said.

Exercises and Weekly Quizzes:
Throughout the semester you will be working on many practice exercises in groups and each exercise is worth 10 points. These exercises will reinforce the concepts covered in the lectures and will help you begin to critically think about SAS programming and its uses. Weekly quizzes must be completed by yourself (not in with your group) and each is worth 10 points. All weekly quizzes and assigned practice exercises together will count for **230 points of the course grade**.

Projects:
There will be two small projects during the semester. These projects are designed to bring together the concepts learned during the exercises. The first project (SQL) is NOT a group project and must be completed individually. The second project (macro) can be a group project. Groups may have up to 4 members and every member must contribute to the project equally. See the syllabus for project due dates. The two projects combined will account for **140 points of the course grade**.

Exams:
There will be one exam for this class. For the Stillwater section, 001, the final will be the Advanced Programming Certification exam from SAS. All students enrolled in section 001 will be required to take this exam (for details about this exam, see: http://support.sas.com/certify/creds/ap.html). For distance learning students, Section 503, you will have the option of taking the Advance Certification Exam or the exam on D2L. Your score on the exam will count for **100 points of the course grade**.

I will make arrangements to offer the certification exam in Stillwater during finals week (usually at the same time as the scheduled lab). SAS will charge $90 (this represents a substantial discount off the actual price of $180) to each student for administering the exam that must be paid at the time of the exam and **cannot** be charged to your bursar account. You must use a credit or debit card to pay for the exam at the time of the exam. If you have any questions or concerns related to the certification exam, please contact me as soon as possible. The SAS certification exam can also be taken at any Pearson Vue testing center around the world. Additional information will be provided to students interested in this option.

Semester Grades: There will be a total of **470 points** possible for this class. Final scores will be based on the percentage of those points earned by the student and then transformed to a letter grade as follows: 90% or above will result in A, 80% or more will result in B, 70% or above will result in C, 60% or above will result in D. Those getting less than 60% will get an F. I will look at the distribution of the total scores and use appropriate normalization as needed.

Late Assignments:
All assignments are due by 9:00 AM on the due date. **Assignments turned in late will get a maximum of 1/2 credit**. If you have an official or medical reason for the late assignment and you provide proper documentation then this will be reconsidered. More details on the assignments/readings will be posted on the class D2L web site.

Note: Also, for all other issues such as add/drop policy, academic integrity etc., I will follow OSU guidelines
((*https://academicaffairs.okstate.edu/sites/default/files/documents/Spring%202016%20Syllabus%20Attachment.pdf)*).

Student Disability Service Issues: If any member of the class believes that s/he has a physical, emotional, or psychological disability and needs accommodations of any nature, the instructor will work with you and the university Office of Student Disability Services (SU 315, 744-7116 v/t) to provide reasonable accommodations to ensure that you have a fair opportunity to perform in this class. Please advise the instructor of such disability and the accommodations as soon as possible. You will need to also contact the Student Disability Services office in order to receive accommodations. No accommodations will be made without prior notification.

Tentative Schedule:

Week	Lab Class Date	Content	Chapters	Assignment	Due Date	Weekly Quiz Due by	Weekly Points
1	13-Jan-16	Class Overview; Review of Base SAS; Intro to PROC SQL; Basic Queries	Intro; SQL Ch 1 & 2	Ch 2 - Qs 1-6	Not due for an grade, just practice	20-Jan-16	Quiz - 10
2	20-Jan-16	Accessing Data Using SQL - Displaying Query Results; Subqueries	SQL Chs 3-4	Ch 3 - Qs 1-2; 4-7 Ch 4 - Qs 1-2; 5-6	27-Jan-16	27-Jan-16	HW - 10 Quiz - 10
3	27-Jan-16	Accessing Data Using SQL - Combining Tables with Joins; Set Operators; Indexing & Views	SQL Chs 5-7	Ch 5 - Qs 1-3; 5-6 Ch 6 - Qs 3-4; 7-9 Ch 7 - Qs 2; 4-5	3-Feb-16	3-Feb-16	HW - 10 Quiz - 10
4	3-Feb-16	Accessing Data Using SQL - Controlling Processing and Managing Tables	SQL Chs 8-9	Ch 8 - Qs 1-6 Ch 9 - Qs 1-2; 4-5	10-Feb-16	10-Feb-16	HW - 10 Quiz - 10
5	10-Feb-16	**SQL Projects Due**					70
6	17-Feb-16	Macro Introduction & Macro Variables	Macro 1 Chs 1-2	Ch 1 - Qs 1-3 Ch 2 - Qs 1-3;6-7;9;11-12	24-Feb-16	24-Feb-16	HW - 10 Quiz - 10
7	24-Feb-16	Macro Definitions	Macro 1 Chs 3	Ch 3 - Qs 1-9	2-Mar-16	2-Mar-16	HW - 10 Quiz - 10
8	2-Mar-16	Macro Processing - Data Step and SQL Interfaces	Macro 1 Ch 4	Ch 4 - Qs 1-11	9-Mar-16	9-Mar-16	HW - 10 Quiz - 10
9	9-Mar-16	Macro Programs	Macro 1 Chs 5	Ch 5 - Qs 1-12	16-Mar-16	16-Mar-16	HW - 10 Quiz - 10
10	16-Mar-16	Spring Break - No Class					
11	23-Mar-16	**Macro Projects due**					70
12	30-Mar-16	Advanced Techniques - Introduction; Controlling I O Processing and Memory; Accessing Observations	Adv Chs 1-3	Ch 1 - Qs 1-3 Ch 2 - Qs 1; 5; 8 Ch 3 - Qs 2; 4;7-8	6-Apr-16	6-Apr-16	HW - 10 Quiz - 10
13	6-Apr-16	Advanced Techniques - Using Lookup Techniques; Arrays; Hash Objects & Hiter	Adv Chs 4-6	Ch 4 - none Ch 5 - Qs 1- 2; 5; 7; 9 Ch 6 - Qs 2; 5; 8; 11	13-Apr-16	13-Apr-16	HW - 10 Quiz - 10
14	13-Apr-16	Advanced Techniques - Creating and Using Formats; Combining Data Horizontally	Adv Chs 7-8	Ch 7 - Qs 1-2; 4-5 Ch 8 - Qs 2; 5; 8; 11	20-Apr-16	20-Apr-16	HW - 10 Quiz - 10
15	20-Apr-16	Advanced Techniques - Sorting SAS DS; Programmer Efficiencies	Adv Chs 9-10	Ch 9 - Qs 2; 5-6 Ch 10 - Qs 2; 5;8; 11	27-Apr-16	27-Apr-16	HW - 10 Quiz - 10
16	27-Apr-16	Review for Exam					
17	4-May-16	Exam 2 - Base SAS Certification Exam or D2L Exam					100