

Marketing 5253, Spring 2018
Advanced SAS Programming for Marketing
CRN – 26871 ONLINE (OL)

SYLLABUS

Professor: Dr. Miriam McGaugh, Clinical Assistant Professor of Marketing

Contact Information:

Office: 307 SSB (old) 429 SSB (new) - Since the Business School is in transition this semester from the old building to the new building, I have included both office numbers. I will not know an exact date when my office will be moving but it should be by the end of spring break. I will notify all students through regular communication channels when my office does move.

Phone: (405) 744-2208, Fax: (405) 744-5180

Office Hours: In the office, by phone or virtually through the online main chat room on Tuesdays from 1:30 to 3:00 pm CST (Central Standard Time) or by appointment.

Course Site: (Brightspace by BRIGHTSPACE): <http://online.okstate.edu> or <http://my.okstate.edu>

Online Learning Support: spearsonline@okstate.edu

Phone: 405-744-4048

Facebook: Follow Spears School Online Learning on Facebook!

<https://www.facebook.com/SpearsOnline/>

Course Description (goals/objectives):

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. Most work in this class will be conducted in Base SAS or SAS Studio and will help students prepare for the SAS Advanced Programming Certification Exam. Python scripting language will also be covered briefly in this course. Please see the tentative schedule for topics to be covered in this class.

Objectives:

1. Writing and interpreting SAS SQL code and understanding the differences between Proc SQL programming and SAS programming
2. Creating and using the SAS MACRO facility to create and manipulate text and programs within SAS.
3. Using advanced DATA step programming statements and efficiency techniques to solve complex problems within the SAS environment.
4. Writing Python code for data science and understanding how to utilize the Python language with SAS.

Course Prerequisites:

MKTG 5243 or

A passing score on the Base SAS Certification Exam administered by SAS or

Permission from the Instructor

Computer and Software Requirements:

- A broadband internet connection
 - Windows 7 or Mac OS Mavericks or newer operating system are preferred
 - Google Chrome or Mozilla Firefox web browser
Note: lecture videos are not compatible with Internet Explorer or Edge
 - [VLC Viewer](#) video player (click on link to download)
 - SAS Software – Base SAS or Enterprise Guide
accessible by:
 - <https://app.it.okstate.edu/sdc/> - SAS 9.4 32 or 64 bit depending on system (need to download activation file also)
 - Virtual SAS Server - <https://desktop.okstate.edu/>
 - SAS University Edition - https://www.sas.com/en_us/software/university-edition/download-software.html
- Note: Please see the Online Classroom system for additional information on accessing and/or installing SAS software.*
- Python software - <https://www.anaconda.com/download/>

Communication Plan:

Teaching Assistant (TA): The TA for this class will be announced via Brightspace during the first two weeks of class. There may be other TAs helping me with this class as well. But, the announced TA will be your primary point of contact for any issues related to this class. The TA will monitor the Brightspace Discussion Board platform twice a day (morning and afternoon). If they are not able to answer your questions immediately, they will contact me and get a response to you as soon as possible (usually within 24 hours).

E-mail: Please use the class discussion board via Brightspace for any general questions, comments, clarifications about any of the class topics (including cases, assignments etc.). Use the e-mail to my TA sparingly and only for questions that disclose or ask for personal information (such as grades, scores, etc.) *There is no need to copy me with your email to my TA – if my TA is unable to answer your question, he/she will discuss with me and get back to you.*

Response Times: The TA and I will respond to student inquiries within 24 hours during Monday-Friday business hours. Students may expect grades for assignments to be posted to the Gradebook in the online classroom within two weeks of turning in the assignment. **Please consider these timelines when you are scheduling your course work assignments. While the TA and I will do everything we can to respond in a timely manner, waiting to post a question one hour before the assignment is due will not allow for adequate time for a response.**

Class Discussion via Brightspace (<https://online.okstate.edu/>): We will use this format extensively for communication among students as well as between students and the instructor. This will be a bulletin-board type system with specific folders for different aspects of this course. There will be multiple forums (folders) in this bulletin board. Please check these folders regularly. Please post your questions only in the **appropriate forums**. Please use appropriate subject line in your posting and use threaded discussion whenever possible. 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.

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.

Grading Policy:

The grades in this class break down as follows:

Exercises/Assignments	120 pts
Quizzes	100 pts
Exam	100 pts
<u>Project</u>	<u>160 pts</u>
Total Points	480 pts

Letter grades will be assigned according to the standard scale.

430-480 pts. = A

382-429 pts. = B

334-381 pts. = C

286-333 pts. = D

0-285 pts. = F

Late Assignments: Assignments must be turned in according to the date and time on the syllabus via Brightspace drop box (not emails). All late assignments (*even 1-minute late*) must be turned in **via the Late Drop Box** and will be *penalized* as follows:

- One late assignment (within 48-hours of due date and time) – *no penalty*
- All other late assignments will carry following penalty structure:
 - Within 1 hour of due date and time – 15% penalty
 - More than 1 hour but less than 24 hours of due date and time – 30% penalty
 - More than 24 hours but less than 48 hours of due date and time – 50% penalty
 - More than 48 hours of due date and time – will not be graded (no credit)

I enforce this rule because I believe that part of effective functioning in business is the ability to complete projects on time. **Please do not email/call/contact me or my TA with excuses (however valid they may be) about making exceptions to my late submission policy.**

Attendance Policy: Students who have not participated in at least one assignment in Brightspace (BRIGHTSPACE) (discussion board, specific assignment, etc.) within the first two weeks of the course will be reported as not having attended class. The instructor will then recommend the student to drop the course.

Course Format:

The class will be conducted using pre-class readings and videos and hands-on practice exercises. There is weekly lab class for the on-campus section of this course that focuses on hands-on

practice and review; however, students from this OL section are not required to attend the lab class. Students will be expected to view the weekly lab video posted by Thursday morning.

Lecture videos will be available via BRIGHTSPACE in streaming video. Other formats may be available based on need (downloadable zip file and podcast). Lecture videos average around 50 minutes in length per chapter.

SAS programming manuals and most video lecture links will be made available on the BRIGHTSPACE Contents tab by the first week of class.

Exercises and Assignments:

Throughout the semester, I will assign homework assignments due each week following the material being covered. Please see the tentative schedule and Brightspace Dropbox for additional information. Assignments should be turned into the online classroom Dropbox by **midnight** CST (Central Standard Time) of the due date. See Late Policy for information regarding late assignments.

These assignments will reinforce the concepts covered in the lectures and will help you begin to critically think about SAS programming and its uses. The lowest homework assignment will be dropped from the final grade calculation. Homework assignments will count for **120 points of the course grade.**

Weekly Quizzes:

Quizzes will be given throughout the semester and found in the quiz tab in Brightspace. All quizzes must be completed by each student (not in your group). There are 12 quizzes and each quiz is worth 10 points. The lowest two quizzes will be dropped from the final grade calculation. Weekly quizzes will count for **100 points of the course grade.**

Projects and Groups

There will be two mini-projects during the semester. These will occur at the end of the SQL and Macro sections of the course. More information will be provided via Brightspace as the semester progresses. Assignments should be turned into the online classroom Dropbox by **midnight** CST (Central Standard Time) of the due date. See Late Policy for information regarding late submissions. The mini-projects will account for **160 points of the course grade.**

Exams:

There will be one exam for this class. The comprehensive final exam will be a proctored exam and you will have a 48-hour window in which to complete the test (please consult tentative schedule). See Action item below for additional information on proctoring. Your score on either exam will count for **100 points of the course grade.**

I will make arrangements to offer the certification exam in Stillwater towards the end of the semester or 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.

ACTION – Choosing a testing center: one week prior to course start date, go to the Spears School of Business Online Learning website to choose a testing center at: spearsonline.okstate.edu, and click on “Select Testing Center” at the top right of the page. Follow the instructions to identify your testing center. Up to one week before each exam start date, make your appointment directly with your testing center to take each exam while being monitored by a proctor for test security reasons. The exam and/or exam instructions will be sent to your testing center 3 days prior to the exam start date. To confirm your testing center received the exam/exam information, call at least one day prior to your appointment time. If the center does not have your exam, contact the Spears School Online Learning office immediately at spearsonline@okstate.edu, or call (405) 744-4048 to request the exam to be sent. Contact that same office if you have any questions regarding the testing center sign up process. You may also visit <http://spears.okstate.edu/online/guide>.

University Policy:

Drop Policy

Information about university drop policy and dates is at this website: <http://registrar.okstate.edu/> To drop this course, contact the Registrar’s office, (405) 744-6876, or drop through Banner Self Service, <http://my.okstate.edu>

Academic Integrity

Oklahoma State University is committed to the maintenance of the highest standards of integrity and ethical conduct of its members. This level of ethical behavior and integrity will be maintained in this course. Participating in a behavior that violates academic integrity (e.g., unauthorized collaboration, plagiarism, multiple submissions, cheating on examinations, fabricating information, helping another person cheat, unauthorized advance access to examinations, altering or destroying the work of others, and fraudulently altering academic records) will result in your being sanctioned. Violations may subject you to disciplinary action including the following: receiving a failing grade on an assignment, examination or course, receiving a notation of a violation of academic integrity on your transcript (F!), and being suspended from the University. You have the right to appeal the charge. Contact the Office of Academic Affairs, 101 Whitehurst, 405-744-5627, <http://academicintegrity.okstate.edu/>.

Accessibility

Any student in this course who has a disability that may prevent him or her from fully demonstrating his or her abilities should contact the instructor as soon as possible, so we can discuss accommodations necessary to ensure full participation and facilitate your educational opportunity. For more information about OSU Student Disability Services, please go to: <http://sds.okstate.edu>.

Syllabus Attachment

For more student resources, go to: <https://academicaffairs.okstate.edu/content/resources-students>

Tentative Schedule:

Week	Week Beginning Date	Video Lecture Content	Lab Class Content	Chs	Assignment	Due Date	
1	16-Jan-18	1. Class Overview 2. Review of Base SAS 3. Overview of Python	Introduction to course and syllabus	None	None		
2	22-Jan-18	SQL 1. Intro to PROC SQL 2. Basic Queries	SAS/ SQL demo and mini-case group activity	SQL Ch 1 & 2	All Level II Exercises for Chs 2, 3 & 4	1-Feb-18	
3	29-Jan-18	1. Displaying Query Results 2. Subqueries	SAS/ SQL demo and project work	SQL Chs 3-4	All Level II Exercises for Chs 5,6 & 7	8-Feb-18	
4	5-Feb-18	1. Combining Tables with Joins 2. Set Operators 3. Indexing & Views	SAS/ SQL demo and mini-case group activity	SQL Chs 5-7	All Level II Exercises for Chs 8 & 9	15-Feb-18	
5	12-Feb-18	1. Controlling Processing 2. Managing Tables	SAS/ SQL demo and project work	SQL Chs 8-9	OL: SQL Mini-Project	22-Feb-18	
6	19-Feb-18	Macro 1. Introduction 2. Macro Variables	SAS Macro demo and mini-case group activity	Macro 1 Chs 1-2	All Level II Exercises for Chs 1 & 2	2/27/2018 3/1/2018	
7	26-Feb-18	1. Macro Definitions 2. Data Step/ SQL Interfaces	SAS Macro demo and project work	Macro 1 Chs 3-4	All Level II Exercises for Chs 3 & 4	8-Mar-18	
8	5-Mar-18	1. Macro Programs	SAS Macro demo and mini-case group activity	Macro 1 Ch 5	All Level II Exercises for Chapter 5	15-Mar-18	
9	12-Mar-18	Advanced Techniques 1. Introduction 2. Controlling I/O Processing and Memory 3. Accessing Observations	SAS Viya/ Advanced Techniques Exercises	Adv Chs 1-3	OL: Macro Mini-Project All Level II Exercises for Chs 1,2 & 3	3/27/2018 3/29/2018	
10	19-Mar-18	Spring Break - No Class					
11	26-Mar-18	1. Using Lookup Techniques 2. Arrays 3. Hash Objects & Hiter	SAS Hash and Hiter Exercise	Adv Chs 4-6	All Level II Exercises for Chs 4,5 & 6	5-Apr-18	
12	2-Apr-18	1. Creating and Using Formats 2. Combining Data Horizontally	SAS Viya/ Advanced Techniques Exercises	Adv Chs 7-8	All Level II Exercises for Chs 7 & 8	12-Apr-18	
13	9-Apr-18	1. Sorting SAS DS 2. Programmer Efficiencies	No Lab Class	Adv Chs 9-10	All Level II Exercises for Chs 9 & 10	19-Apr-18	
14	16-Apr-18	Python - TBA	Python demo and group work	TBA	TBA	26-Apr-18	
15	23-Apr-18	Python - TBA	SAS Viya/ Python integration	TBA	TBA	3-May-18	
16	30-Apr-18	Python - TBA	SAS Viya/ Python integration	TBA	None		
17	7-May-18	Final Exam					