



BP20 SAS Programming

Teacher: Renee Driggers

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Course Room: B23

Tutoring: available by appointment

Office Hours: 10:00 - 11:00 or by appointment - **Google Meet code:** thsdriggers

Course Description

This course is the entry point for students to learn SAS programming. Students will learn how to plan and write SAS programs to solve common data analysis problems. Instruction provides practice running and debugging programs. Emphasis is placed on reading input data, creating list and summary reports, defining new variables, executing code conditionally, reading raw data files and SAS data sets and writing the results to SAS data sets. The course can help prepare students for the SAS Base Programming Exam for SAS 9 certification exam.

Course Outline

A SAS PROGRAMMING FUNDAMENTALS

1.00 Apply SAS Base programming concepts.

1.01 Apply basic Base procedures to access libraries and enhance readability. (9%)

1.02 Apply editing and debugging techniques to programming procedures. (3%)

1.03 Apply DATA STEP programming to create and debug data sets. (10%)

1.04 Apply an understanding of the fundamentals of SAS Syntax and rules of SAS programming to successfully run a program. (5%)

2.00 Apply techniques to create basic and advanced reports.

2.01 Apply PROC PRINT with options to create basic reports. (10%)

2.02 Apply PROC FORMAT, PROC REPORT, PROC MEANS, PROC SORT AND PROC FREQ to generate advanced reports. (11%)

2.03 Utilize Output Delivery System (ODS) to create, customize and manage output. (5%)

B ADVANCED DATA MANIPULATION TECHNIQUES

3.00 Apply advanced programming techniques to manipulate data sets.

3.01 Apply decision structure methods to conditionally assign values when creating and managing variables. (5%)

3.02 Apply modifying options to manipulate output. (7%)

3.03 Apply advanced programming methods to combine and manipulate data sets. (5%)

4.00 Apply advanced programming techniques to manipulate data.

4.01 Apply functions to manipulate and convert data. (4%)

4.02 Apply iterative processing and SAS arrays. (5%)

5.00 Apply advanced techniques to read data into SAS and manipulate records.

5.01 Apply SAS programming methods to read and handle standard and non-standard numeric data as well as standard and non-standard fixed-field data. (9%)

5.02 Apply SAS formats and informats to handle SAS date and time values. (6%)

5.03 Apply advanced SAS programming methods to read multiple records sequentially and non-sequentially to create a single record as well as

to create multiple observations from a single record. (3%)

5.04 Apply advanced SAS programming procedures to read hierarchical files (3%)

Required Online Tools

- Canvas (for online resources, assignments, performance tasks, and announcements)
- SAS account (programming practice and performance tasks)
- Quizlet account (vocabulary reinforcement)

Course Grading Policy

<p>Assessment Criteria 40% Participation: Discussions, Classwork/Homework, Reading Reflections 30% Vocabulary Quizzes and Lesson Summative Assessments 30% Projects and Unit Formative Assessments</p>

Class Principles

We will review classroom expectations together to build a sense of community and respect. Following the Randolph County Schools handbook, we will comply with the rules and policies set forth. In our computer lab, please keep your computer area clean and free of food crumbs and clutter. Please be prepared to start your bellringer when you enter the classroom. Our Computer Science and Programming classes encompass creativity and discovering about the technological world around us, while developing your own personal, social, and workplace skills. I believe in each of you and embrace your creativity and individualism. Our overall goals will be to learn the content of the course while building our confidence within ourselves, our classmates, and our classroom... together.

Academic Honesty

All Trinity High School students must adhere to the school's Academic Honesty Policy, which prohibits plagiarism and cheating on all assignments. Academic honesty can be especially difficult when you are using internet tools and writing computer code. If you are not sure if a particular choice will adhere to the Academic Honesty Policy, please check with me to make sure you are in compliance.

Please be very careful to cite your sources, submit only your own work, and ensure you are following all the rules for academic honesty on each assignment for this course.

Parents/Guardians - please return to me if possible:

Your student is enrolled in the SAS Programming course this semester. I have high expectations for my students and request your cooperation in seeing that he/she is successful in completing this course. In the cases of inclement weather, students will be assigned work to complete online to continue their course. Please sign below acknowledging your understanding of the above information. If you need to contact me, please call the school office at (336) 861-6870 or email me.

Student Learner Signature: _____

Parent/Guardian Signature: _____

Email: _____

Cell Phone number(s): _____

****Preference on method to contact you: Circle: telephone or email**

*****Do you have a Parent Portal account for PowerSchool? Circle: YES or NO**

