# 307 Oral Exam script

Say hi and welcome them. Perhaps make a small joke to try and get them somewhat comfortable.

## Describe process, ask if they have any questions before you get started

Share the following bullet points as a document.

## We want to ask you a few questions about a SAS program we’ll share with you.

## I’ll share my screen, ask you to consider particular pieces of code, and describe to me what that code does or why we might run it.

## I may ask clarification questions or follow-up questions if you don’t fully answer the question.

## If you don’t know the answer, that’s ok. Just let us know and we’ll move to the next item.

## We do have firm time limits on answers to questions. We may have to cut you off so we can get all of the questions in a timely manner.

## Any questions?

## Share document and ask questions

Switch to sharing the .sas file within SAS Studio (this should show line numbers, also make sure your font is large and your window is mostly taken up by the .sas file) Double check that they can see the document.

Ok, now I'm going to ask you some questions about the program you see.

### Question 1 (3 pts):

* On line 1 we have a LIBNAME statement. What is the purpose of running this LIBNAME statement?
  + Followup often needed, why do we create a library? What does that do for us?
  + There are two types of libraries in SAS, which type of library does this create?

### Example Answer

This LIBNAME statement **creates a permanent library**. We **usually save data** in this kind of library.

#### Follow up:

* If they don’t mention the purpose of a library (saving data), follow up with
  + And why do we use permanent libraries?
* If they say it sets up a library but not a permanent one, follow up with
  + Is there anything special about this kind of library?

### Question 2 (2 pts):

#### Option 1

Lines 3 through 7 make up a PROC IMPORT step. What is the purpose of running a PROC IMPORT step?

#### Example Answer

To import **data from a raw (or external) file into a SAS dataset.**

Follow up:

* If they just say bring data into SAS, ask them
  + What does it mean to bring data into SAS?

#### Option 2

Lines 16 through 18 make up a PROC SORT step. What is the purpose of running a PROC SORT step?

Often needed a follow up of what do you mean when you say sort? What exactly changes about the dataset?

#### Example Answer

To **sort the rows of a SAS dataset**.

Follow up:

* If they just say to sort a SAS dataset, ask them
  + Can you be more specific about what it means to sort the data? In what way is the data changed?
* If they just say to sort the rows of a dataset, ask them
  + Which types of datasets can you sort with a PROC SORT step?

#### Option 3

Lines 20 and 21 make up a PROC PRINT step. What is the purpose of running a PROC PRINT step?

#### Example Answer

To import **print (or display) a SAS dataset.**

Follow up:

* If they just say to print a dataset, ask them
  + Which types of datasets can you print with a PROC PRINT step?

### Question 3 (2 pts):

#### Option 1

On line 5 we have the code OUT = NCSU.calories. What does NCSU.calories mean?

#### Option 2

One line 10 we have the code SET NCSU.calories;. What does NCSU.calories mean here?

#### Option 3

On line 16 we have the code OUT = NCSU.sortcalories. What does NCSU.sortcalories mean here?

#### Example Answer

This references the (sub)calories dataset in the NCSU library.

### Question 4 (3 pts):

#### Option 1

On line 12 we have the code IF MISSING(lactic) THEN DELETE;. Lactic is a variable in our data set. What is the purpose of this line statement?

#### Example Answer

This code **deletes any observations** where the **lactic variable is missing**.

#### Option 2

On line 13 we have the code total = h2s + lactic;. h2s and lactic are both variables in our dataset. What is the purpose of this statement?

#### Example Answer

This statement **creates a new variable** that is the **sum of the h2s and lactic values**.

#### Option 3

On line 10 we have the code SET NCSU.calories;. What is the purpose of this SET statement?

#### Example Answer

This SET statement **copies the already existing NCSU.calories SAS dataset**.

## Wrap up

Tell them thank you for answering the questions and that they will have access to their grade after all the oral discussions have completed.