

How do you calculate mean and standard deviation in SPSS?

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SPSS (Statistical Package for the Social Sciences) is a software used for statistical analysis. To calculate the mean and standard deviation in SPSS, you need to select the variable(s) you want to analyze and go to the "Analyze" menu. From there, choose "Descriptive Statistics" and then "Descriptives". In the options, select the variable(s) you want to calculate the mean and standard deviation for and click "OK". The results will be displayed in the output window, including the mean, standard deviation, and other descriptive statistics. This method is commonly used in research and data analysis to summarize and understand the central tendency and variability of a dataset.

Calculate Mean and Standard Deviation in SPSS

The value of a dataset represents the average value. It gives us a good idea of where the center of a dataset is located.

The of a dataset represents how spread out the values are in a dataset. It gives us an idea of how closely the observations are clustered around the mean.

Using only these two values, we can gain a strong understanding about the distribution of values in a dataset.

The easiest way to calculate the mean and standard deviation of a dataset in SPSS is to use Analyze > Descriptive Statistics > Descriptives.

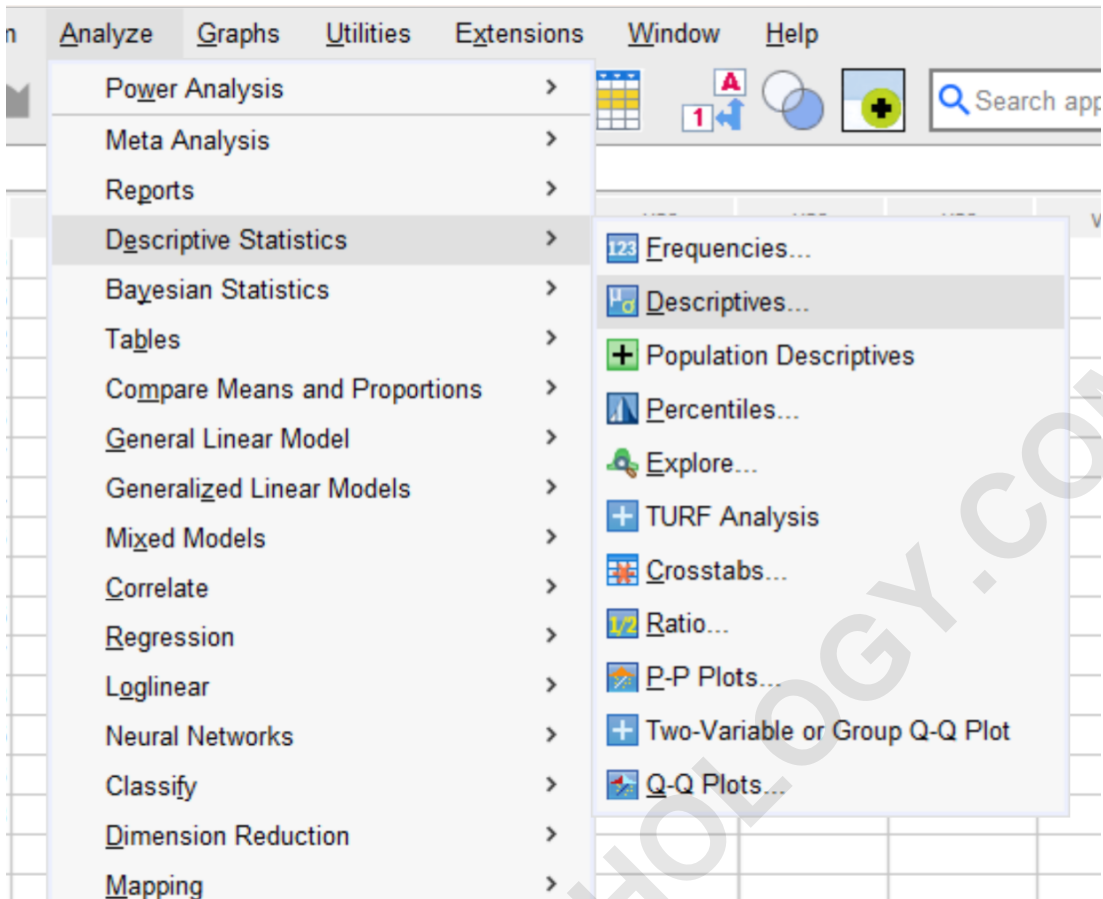
The following example shows how to do so in practice.

Example: How to Calculate Mean and Standard Deviation in SPSS

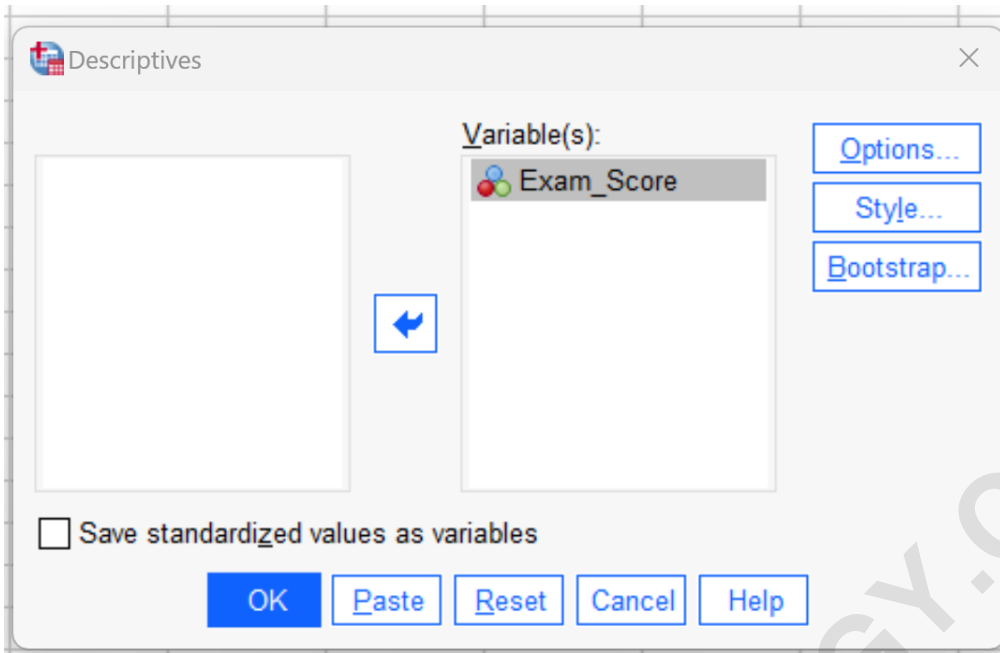
Suppose we have the following dataset in SPSS that shows the exam scores received by various students in some class:

	Student_ID	Exam_Score	var	var
1	1	88		
2	2	95		
3	3	92		
4	4	97		
5	5	96		
6	6	97		
7	7	94		
8	8	86		
9	9	91		
10	10	95		
11	11	97		
12	12	88		
13	13	85		
14	14	76		
15	15	68		
16				
17				
18				
19				

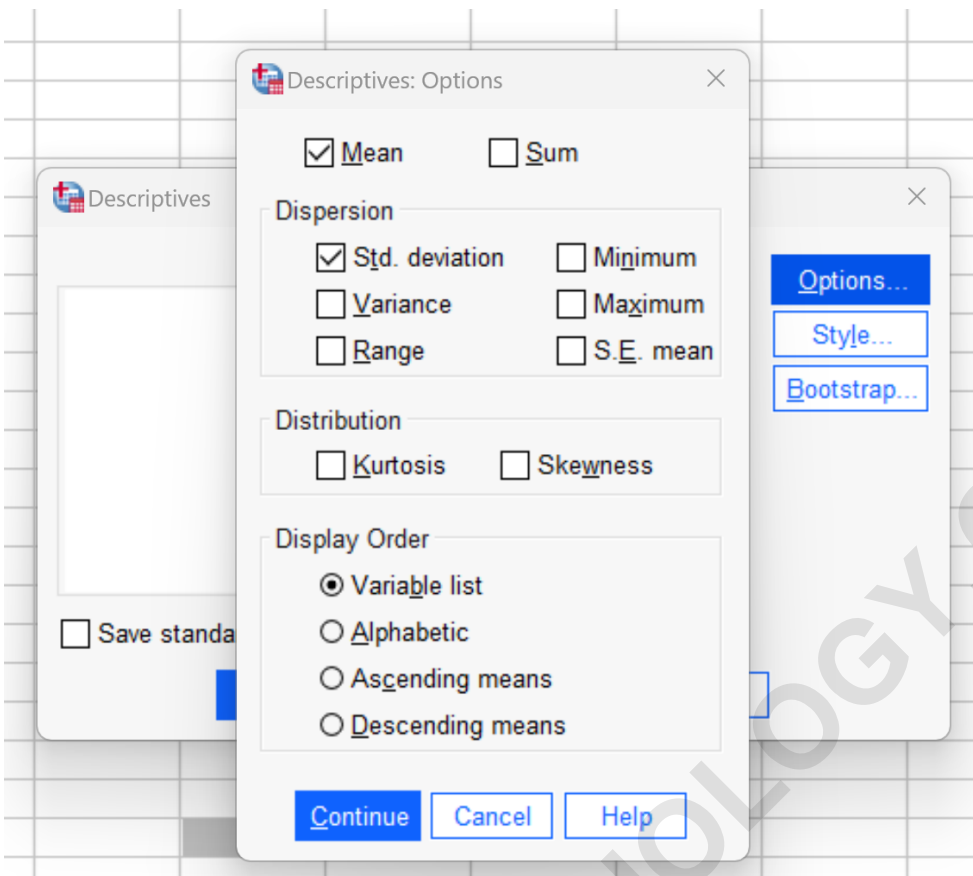
To calculate the mean and standard deviation of exam scores, click the Analyze tab, then click Descriptive Statistics, then click Descriptives:



In the new window that appears, drag Exam_Score to the Variables panel:

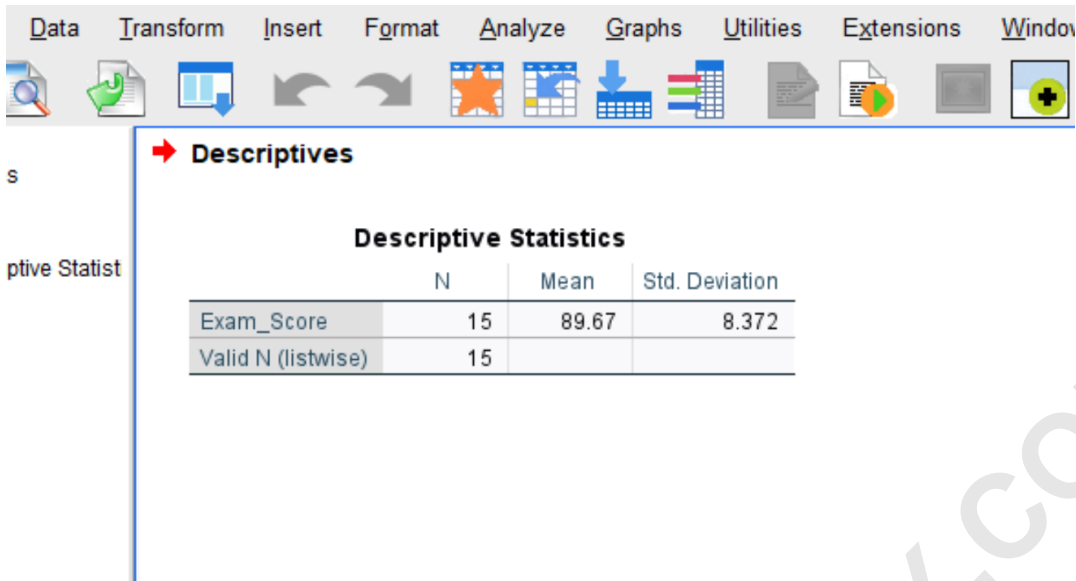


Then click the Options button. In the new window that appears, make sure to check the boxes next to Mean and Std. deviation:



Then click Continue. Then click OK.

The following output will appear:



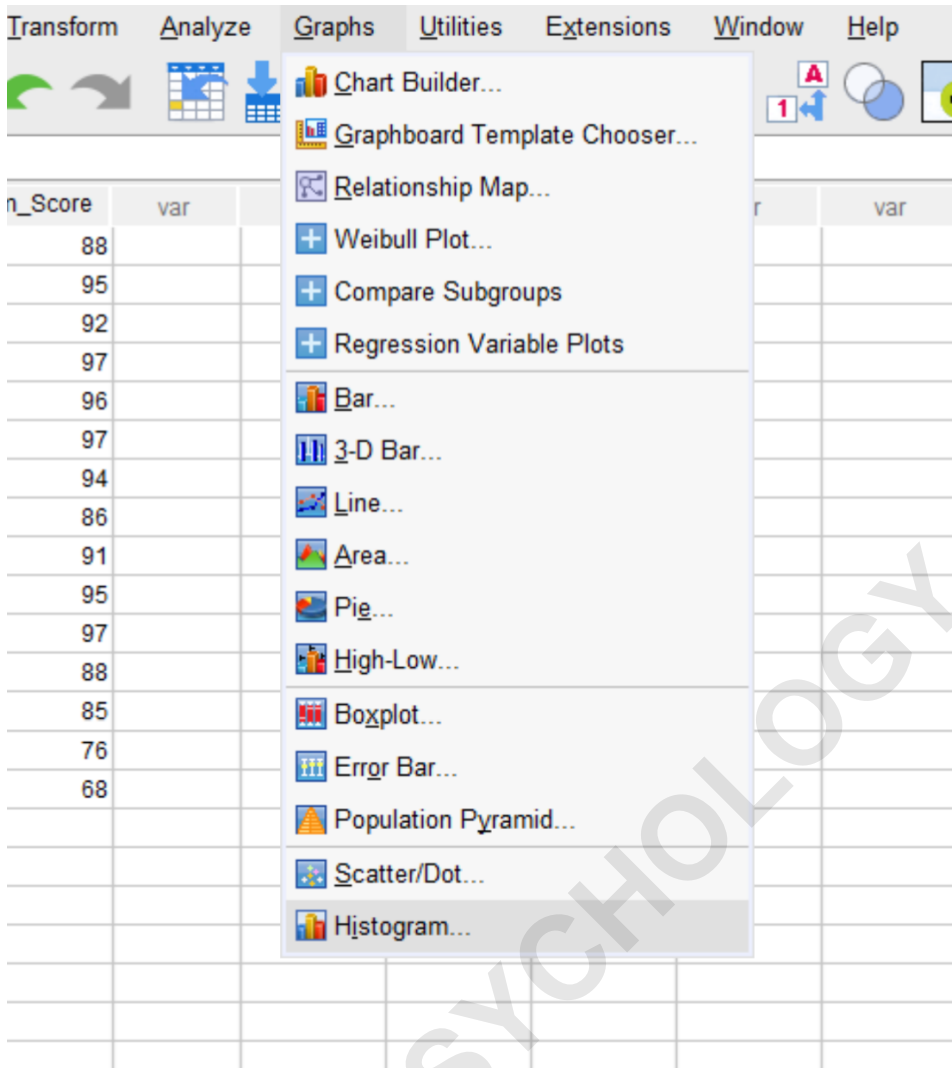
The screenshot shows the SPSS software interface with the 'Descriptives' output window open. The window displays a table of Descriptive Statistics for the variable 'Exam_Score'. The table has four columns: N, Mean, and Std. Deviation. The data shows a mean score of 89.67 and a standard deviation of 8.372 for 15 valid cases.

	N	Mean	Std. Deviation
Exam_Score	15	89.67	8.372
Valid N (listwise)	15		

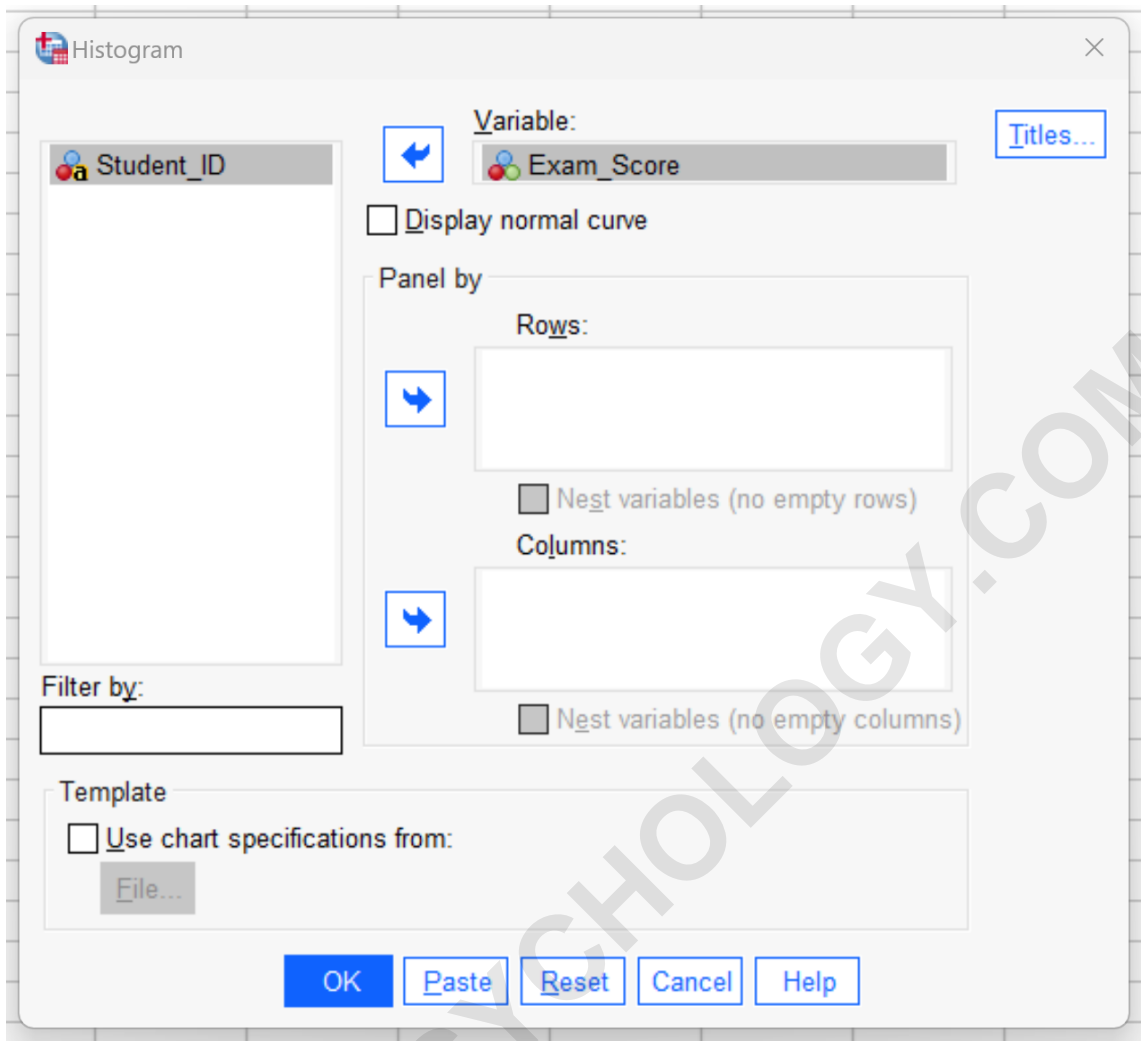
The mean exam score is 89.67. The standard deviation of exam scores is 8.372.

In addition to calculating these metrics, it can be helpful to create a histogram to visualize the distribution.

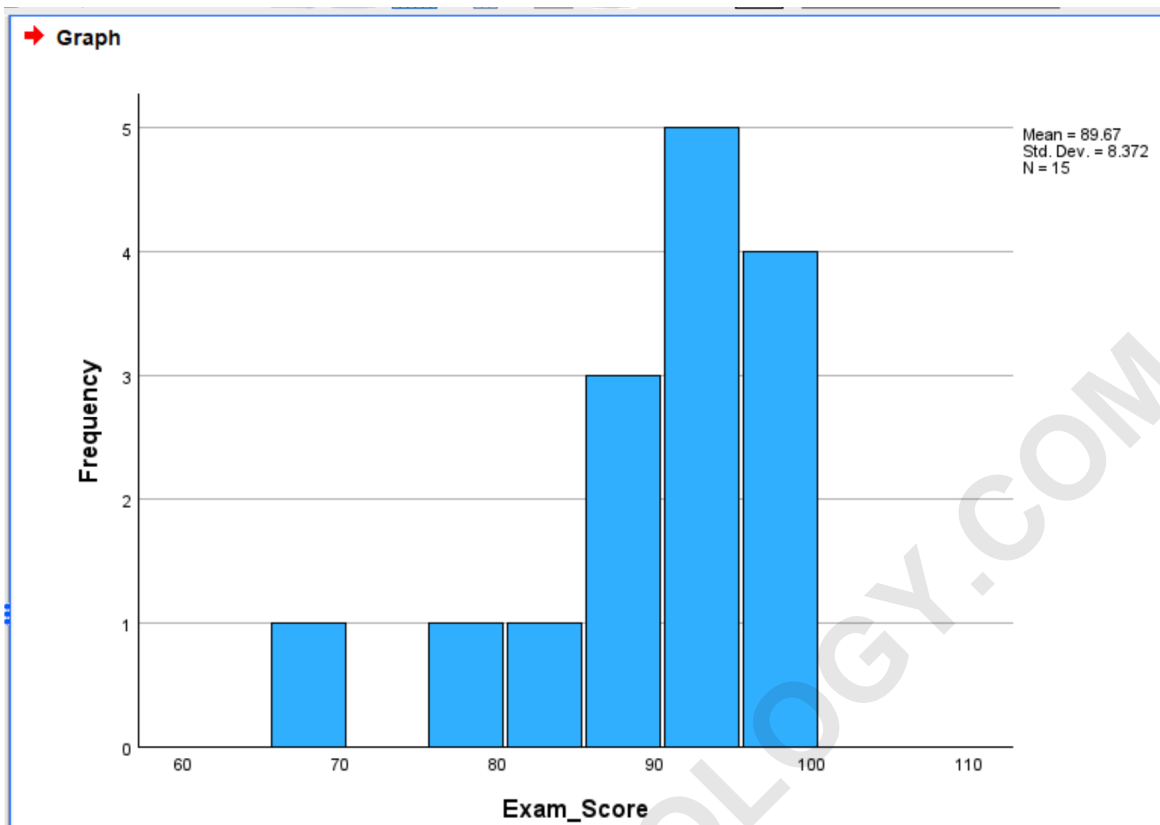
To do so, click the Graphs tab, then click Histogram:



In the new window that appears, drag Exam_Score into the Variable panel:



Once you click OK, a histogram will be generated that shows the distribution of exam scores:



This histogram helps us see that although the mean exam score is 89.67, the exam scores vary quite a bit, ranging from the mid 60's to the high 90's.

The following tutorials explain how to perform other common tasks in SPSS: