



**Parkland College**  
**Arba Minch**  
**Short Term Trainings Programs**

---

**Basic and Classic Data Management in SAS**

**About the Course**

This course aims to provide a comprehensive introduction to the SAS analytic software for Windows. Through a mixture of lectures and in-class examples, quizzes, and take-home assignments, students will gain experience using the SAS system for data manipulation, management and analysis. Emphasis will be placed on the skills and techniques necessary for efficient data manipulation, management and analysis. It is designed for students with little to no background with SAS, and an understanding of the basic statistical concepts. This will be an excellent choice for your first SAS introduction course for your data analysis career.

**Target Participants**

- Beginners or job seekers interested in learning SAS Programming, statistical and data analysis in industry fields.
- People who wish to enter data science/analytics field.

**Course Duration**

- 2 Days at 8 hours a day

**Course Objectives**

What you will learn

- Master fundamentals of using SAS
- Read and write various types of raw data with different formats and options
- Create and modify various professional and statistical reports
- Master the most complete SAS descriptive statistical analysis

**Course Outline**

**1. Fundamentals of Using SAS (part I)**

- 1.1 Introduction to SAS
- 1.2 Descriptive information and statistics
- 1.3 An overview of statistical tests in SAS
- 1.4 Exploring data with graphics

**2. Fundamentals of Using SAS (part II)**

- 2.1.Using where with SAS procedures
- 2.2.Missing values in SAS
- 2.3.Common SAS options
- 2.4.Overview of SAS syntax of SAS procedures
- 2.5.Common error messages in SAS



### **3. Reading Raw Data into SAS**

- 3.1. Inputting raw data into SAS
- 3.2. Reading dates into SAS and using date variables

### **4. Basic Data Management in SAS**

- 4.1. Creating and recoding variables
- 4.2. Using SAS functions for making/recoding variables
- 4.3. Subsetting variables and observations
- 4.4. Labeling data, variables and values
- 4.5. Using Proc Sort and the BY statement
- 4.6. Making and using permanent SAS data files (version 8)

### **5. Classic Data Management Problems**

- 5.1. Merging Data Files via Data Step, Proc SQL
- 5.2. Concatenating (stacking) SAS data files
- 5.3. Working across variables
- 5.4. Collapsing across observations in SAS via Proc Means, Proc SQL, Data Step I, Data Step II
- 5.5. Reshaping data from wide to long via Proc Transpose, Data Step
- 5.6. Reshaping data from long to wide via Proc Transpose, Data Step

### **6. Other**

- 6.1. Comparing SAS and Stata side by side

### **Prerequisites**

It is designed for students with little to no background with SAS.

### **Training Approach**

This Basic and Classic Data Management in SAS course is delivered by our seasoned trainers who have vast experience as expert professionals in data analysis with Stata. The course features plenty of practice materials, quizzes, and a final assessment to cement your newly acquired SAS skills.

Training manuals and additional reference materials are provided to the participants.

### **Certification**

Upon successful completion of this course, participants will be issued with a certificate.

### **Tailor-Made Course**

We can also do this as a tailor-made course to meet organization-wide needs. A training needs assessment will be done on the training participants to collect data on the existing skills, knowledge gaps, training expectations, and tailor-made needs.