

Nutech Computer Training Institute

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SAS Base Hands-On Programming Training Outline

1. Fundamental Concepts of SAS Programming
 - Introduction
 - Fundamental Concepts
 - Chapter Summary
 - Exercise
2. Get Familiar with SAS Data Sets
 - Accessing Existing SAS Data Sets
 - Investigating Data Set Structure
 - Investigating Data Values
 - Ad HOC Queries and Data Modification
 - Reading Raw Data Files
 - Examining Data Errors
 - Creating Permanent SAS Data Sets
 - Assigning Variable Attributes
 - Chapter Summary
 - Exercises
3. Processing Raw Data
 - Introduction
 - Review Reading Raw Data
 - Multiple Records per Observation
 - Conditional Input
 - Accumulating Totals
 - Hierarchical Files
 - Multiple Observations per Record
 - Writing Raw Data (Optional)
 - Chapter Summary
 - Exercises

4. Data Step Programming
 - Creating and Managing Variables
 - Reading SAS Data Sets
 - Conditional Processing
 - Chapter Summary
 - Exercises

5. Data Manipulation
 - Introduction
 - Manipulating Numeric Values
 - Manipulating Character Values
 - Data Conversion
 - Iteratively Executing Statements
 - DO Loops
 - Array Processing
 - Chapter Summary
 - Exercise

6. Combining SAS Data Sets
 - Concatenating SAS Data Sets – SET Statement
 - Merging SAS Data Sets
 - Updating SAS Data Sets
 - Chapter Summary
 - Exercises

7. Producing Reports
 - Getting Started with the PRINT Procedure
 - Sequencing and Grouping Observations
 - Customizing Report Appearance
 - Formatting Data Values
 - Creating Tabular Reports
 - Customizing Tabular Reports
 - Requesting Statistics in Tabular Reports
 - Chapter Summary
 - Exercises

8. Data Analysis
 - FREQ Procedure
 - MEANS / SUMMARY Procedure
 - UNIVARIATE Procedure
 - Chapter Summary
 - Exercises

9. Processing SAS Data Sets with PROC SQL

- Structured Query Language
- Concatenating SAS Data Sets
- Merging SAS Data Sets
- Overview of Accessing Data from ACCESS, SQL Server, and Oracle Databases
- Chapter Summary
- Exercises

10. SAS Macro Facility

- Introduction
- Macro Variables
- Macro Program Statements
- Chapter Summary
- Exercises

11. Introduction to Graphics (Optional)

- General Concepts
- Producing Bar and Pie Charts
- Producing Plots
- Chapter Summary
- Exercises

12. Case Study

- Task Description
- Solutions and Discussion
- Future Program Development Strategies