SAS Programming

Name of the Department	: Department of Botany
Course Directors	: Dr. T.V. Ranganathan
Course Coordinator	**:** Dr. Jayarama Reddy
Duration of the Course	: 90 Hrs
Total No. of Credits	: 3
Fees	: **Rs.5,000/-**
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Eligibility	: 1st and 2nd year UG students of all disciplines

Objectives

- SAS is widely used in clinical trial data analysis in pharmaceutical, biotech and clinical research companies. SAS programmers play an important role in clinical trial data analysis. The opportunities for SAS programmers to address the technical needs of the health care industry are expanding.
- According to a massive study from MONEY and Payscale.com, SAS Analytics skills are the most valuable skills to have in today's job market.
- Top companies like Quintiles, Accenture, TCS, Cytel, ICON, Triesta are using SAS for clinical research and data management.
- SAS related job positions like Data analyst, Clinical data entry operator, Clinical data management. Quality control, Bio-Statistician and Business Analyst are currently available in clinical data management Industries.
- Companies currently hiring in SAS are GE,Genpact, Standard Chartered Bank, Fidelity, HSBC, HP, Accenture, WIPRO,TCS, IBM India, American, Express, Ranbaxy, Cipla, WNS, Barclays,Tech Mahindra, HCL, Infosys, and many more.

Syllabus

Unit-1

- Introduction to SAS program
- SAS Data types and Libraries
- Data Steps and Proc Steps
- Format & In format,
- Creating OutputProc Print, Proc Contents
- Output Delivery System (ODS) , Creating own format

Unit-II

- Reading Raw data – Column input
- Understanding Data step processing
- Formatted Input and List input
- Reading date and Time format
- Reading Instream data
- Creation of raw data file from dataset

Unit-III

- Managing Variables in dataset
- Assignment and Cumulative statement
- Subsetting data, drop and keep option

Unit-IV

- If-else, if-else with do statement, Select When, Do-loop Statement
- Managing SAS Dataset using set statement

Unit-V

- SAS functions Overview
- String Functions
- Conversion Functions
- Date Functions
- Mathematical Functions

Unit-VI

- Descriptive statistics-Proc means and procfreq
- Proc report-column, define, headline, head skip, compute, order and group
- Proc tabulate, Proc transpose

Unit-VII

- Combining data set-one to one reading, concatenation and merge
- Array-single and multi dimensional array
- Procprintto, proc import and proc export