



DEPARTMENT OF BIOTECHNOLOGY
Workshop/ Seminars/ IPR/ Skill Development Programme
SESSION 2017- 2018



**1. 28th December, 2017 to 11th January, 2018: SAS Programming on Clinical Research,
(Jointly Dept. Of Biotechnology & Venue Analytics, Kolkata)**

Report: Between 28th December, 2017 and 11th January, 2018, a two weeks workshop was organized by the Department of Biotechnology in association with Venues Analytics, Kolkata for PG Students of Biotechnology. All the members of the Society of Biotechnology (M.Sc. previous and final students) have participated in the workshop, besides Research Scholars of the department have also actively participated. The inaugural session of the workshop was presided by the Principal of the College at Dr. APJ Abdul Kalam Hall at 11:30 am followed by a series of technical sessions of the workshop. During the workshop, the proprietor of Venus Analytics, Kolkata, Mr. Premanjan Biswas has delivered several lectures and hands on sessions on various topics related to SAS Programming for clinical research. Followings are the topics covered during the two weeks long workshop-

- The Base SAS Programming Language.
- Two Parts of SAS Program
- Data Step's built-in Loop.
- SAS Windowing Environment- Windows & Commands
- Submitting Program in SAS Windowing Environment.
- Reading SAS Log.
- Viewing Results in Output Window.
- Creating HTML Output.
- SAS data libraries
- Viewing SAS data file in view table window
- Viewing properties of data sets with SAS explorer
- Application of SAS in clinical data management and healthcare
- Methods of getting data into SAS
- Data import and export using SAS
- Reading raw data separated by spaces - list input
- Reading raw data arranged in columns - column input
- Reading raw data not in standard format - formatted input
- Selected informat
- Mixing input style
- Reading messy raw data
- Reading multiple lines of raw data per observation
- Reading multiple observations per line of raw data
- Reading part of a raw data file
- Controlling input with options in the INFILE statement
- Reading delimited files with the data step
- Temporary versus permanent SAS data sets
- Retain and sum statement
- SAS character functions
- SAS numeric functions
- SAS date and time functions
- IF THEN ELSE logic
- Using boolean logic
- Where statement
- Do loop and do group
- Introduction to macro statement
- Introduction to PROC SQL
- Concept of CDISC , SDTM , ADaM and TLF

On 11th of January, 2018, a test has been taken for the student to evaluate their knowledge about SAS Programming Language and grading were given to the students on an 10 point CGPA scale. Valedictory session was also presided by the Principal of the College and certificates were issued to all the participants.



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