



NETAJI SUBHAS OPEN UNIVERSITY

SCHOOL OF SCIENCES

H.Q.: DD-26, Salt Lake, Sector-I, Kolkata - 700 064

City Campus: K-2, Bidhannagar Fire Station, Sector- V, Salt Lake, Kolkata - 700 091

Kalyani Campus: First Floor, Academic Building, Kalyani Ghoshpara, Kalyani - 741235

Website: www.wbnsou.ac.in

Memo No: SoSci/ 485 3

Date: 24/11/2025

NOTICE for Ph.D. Course Work on Quantitative and Computational Method For Ph.D. Students (enrolled in 2024-25 session)

This is to inform that the University will be conducting the Ph.D. Course Work on “**Quantitative and Computational Method**” (Paper IA – Unit III) for all scholars enrolled in the **2024-25 session**. Please note that this course work is **mandatory for every scholar**. Therefore, all concerned scholars are advised to attend the sessions as per the schedule provided in **Annexure-1 (on page 2)**. It may also be noted that **the dates for the last three classes will be finalized later**, depending on the **availability of the laboratory** and other institutional requirements. The scholars are further requested to follow the guidelines outlined below.

Key Information:

- The entire course will be **laboratory-based with hands-on practice**, focusing on computational techniques and data analysis methods.
- Scholars may **bring their personal laptops**, if they wish, to facilitate practice and for better continuity of work outside the laboratory.
- A **final examination** will be conducted upon completion of the course work. Successful completion is required for continuation in the Ph.D. programme.
- Scholars are expected to arrive on time and participate actively in the practical sessions.

Mrinal Nath

Mrinal Nath
Asst. Prof. of Computer Science
School of Sciences, NSOU

Bibhas Guha

Prof. Bibhas Guha
Director, School of Sciences
NSOU

- Copy to:
1. Registrar with a request to upload the notice in NSOU website
 2. Directors of the Schools of Studies concerned
 3. Faculties of SoSci concerned
 4. E.S. to V.C.
 5. Regional Director, Kalyani Campus
 4. Gobindo Das, Junior Assistant, SoSci, Kalyani

Bibhas Guha

Prof. Bibhas Guha
Director, School of Sciences, NSOU



NETAJI SUBHAS OPEN UNIVERSITY

SCHOOL OF SCIENCES

H.O.: DD-28, Salt Lake, Sector-I, Kolkata - 700 064

City Campus: K-2, Bidhannagar Fire Station, Sector-V, Salt Lake, Kolkata - 700 091

Kalyani Campus: First Floor, Academic Building, Kalyani Ghoshpara, Kalyani - 741225

Website: www.wbnsou.ac.in

Annexure -1

Ph.D. Course Work-Quantitative and Computational Methods, 2024 – 25 Schedule

Lecture No	Topics	Date	Time
1	Course Introduction - Quantitative data analysis in research - Installation and Setup R Console and R - Studio - Introduction to dplyr package - Base commands for vectorized operation	30/11/2025 (Sunday)	12 pm – 3 pm
2	More on R: - Introduction to ggplot for graphics management. - Use of dplyr and ggplot to generate descriptive statistics for different case studies from Physical, Biological and Social Sciences domains.	07/12/2025 (Sunday)	12 pm – 3 pm
3	Data Driven Decision Making: - Probability and Distribution - Sample, Population and Sampling Distribution - Hypothesis Testing - Large Sample test(Z – normal)	14/12/2025 (Sunday)	12 pm – 3 pm
4	Small Sample Testing using different case studies: - t-test - chi-square	21/12/2025 (Sunday)	12 pm – 3 pm
5	Small Sample Testing(Continued): - anova - manova - Introduction to Correlation and Regression analysis	To be decided later	12 pm – 3 pm
6	Small Sample Testing(Continued): - Correlation and Regression analysis - Non-parametric testing	To be decided later	12 pm – 3 pm
7	Research Case Studies	To be decided later	12 pm – 3 pm
8	Final Examination	18/01/2026 (Sunday)	12 pm – 3 pm