

Department of Chemistry

Barasat Govt College

Value Added Course Title: Water Pollution and Analysis

Duration: 7th-13th June

Time: 10 am to 5 pm on 7th, 8th, 9th, 12th and 13th June

Contact Hours: 35 Hours

Resource Persons: 7 Teachers and 2 Non-teaching staff of the Department of Chemistry

Sr. No.	Name of Teacher	Course Taught
1.	Dr. Prabir Kumar Bhattacharyya	Theory
2.	Dr. Arup Bandopaddhyay	Theory & Practical
3.	Dr. Suparna Basu Chaki	Theory
4.	Dr. Jeebananda Jana	Theory & Practical
5.	Dr. Samrajnee Dutta	Theory & Practical
6.	Dr. Soma Nath Deoghoria	Theory & Practical
7.	Dr. Ambarish Ray	Theory

Sr. No.	Name of Non-Teaching Staff
1.	Ram Narayan Hela
2.	Hemlata Mondal

Participants: 19 students of both Hons. and General Stream

Name of participants:

Sr. No.	Name	College Roll No.	Semester	Stream
1.	Mayukh Mondal	2142038	4 th	Pure General
2.	Satyajit Das	2042021	6 th	Pure General
3.	Tousif Ahmed Mondal	2042045	6 th	Pure General
4.	Md. Sahil Ahmed	2042076	6 th	Pure General
5.	Sagar Dey	2042070	6 th	Pure General
6.	Sudeshna Debnath	2051047	6 th	Pure General
7.	Swapnomoy Mondal	2042080	6 th	Pure General
8.	Shreya Dhali	2042019	6 th	Pure General
9.	Partha Pratim Pal	2042109	6 th	Pure General
10.	Prerana Chowdhury	2017019	6 th	Chemistry Hons.
11.	Sumita Dutta	2017040	6 th	Chemistry Hons.
12.	Esha Paul	2017045	6 th	Chemistry Hons.
13.	Saptak Chowdhury	2017027	6 th	Chemistry Hons.
14.	Aritra Saha	2017002	6 th	Chemistry Hons.
15.	Arkadip Mondal	2017033	6 th	Chemistry Hons.
16.	Poulomi Bhattacharyya	2017054	6 th	Chemistry Hons.
17.	Nelov Mallick	2017046	6 th	Chemistry Hons.
18.	Dipanjana Bhattacharjee	2017051	6 th	Chemistry Hons.
19.	Sreya Roy	2017009	6 th	Chemistry Hons.

Evaluation: Through written test (MCQ) and viva-voce.

Feedback Analysis Form: Provided

Pictures of the event:



Certificate: Provided on successful completion of course.



Attendance sheet

Department of Chemistry, Barasat Govt. College

Value Added Course: Session 2022-23

WATER POLLUTION AND ANALYSIS

Record of Attendance of the Participants

Sl. No.	NAME (in Capital Letters)	Roll No.	Signature				
			Day 1	Day 2	Day 3	Day 4	Day 5
1	PRERANA CHOWDHURY	2017019	Prerana Chowdhury	Prerana Chowdhury	Prerana Chowdhury	Prerana Chowdhury	Prerana Chowdhury
2	SUMITA DUTTA	2017040	Sumita Dutta	Sumita Dutta	Sumita Dutta	Sumita Dutta	Sumita Dutta
3	ESHA PAUL	2017045	Esha Paul	Esha Paul	Esha Paul	Esha Paul	Esha Paul
4	SAPTAK CHOWDHURY	2017027	Saptak Chowdhury	Saptak Chowdhury	Saptak Chowdhury	Saptak Chowdhury	Saptak Chowdhury
5	ARITRA SAHA	2017002	Aritra Saha	Aritra Saha	Aritra Saha	Aritra Saha	Aritra Saha
6	ARKADIP MONDAL	2017033	Arkadi'p Mondal	Arkadi'p Mondal	Arkadi'p Mondal	Arkadi'p Mondal	Arkadi'p Mondal
7	ANKAN KAYAL ✗	2017050					
8	POULAMI BHATTACHARYYA	2017054	Poulami Bhattacharyya	Poulami Bhattacharyya	Poulami Bhattacharyya	Poulami Bhattacharyya	Poulami Bhattacharyya
9	NELOV MALLICK	2017046	Nelov Mallick	Nelov Mallick	Nelov Mallick	Nelov Mallick	Nelov Mallick
10	DIPANJANA BHATTACHARJEE	2017051	Dipanjana Bhattacharjee	Dipanjana Bhattacharjee	Dipanjana Bhattacharjee	Dipanjana Bhattacharjee	Dipanjana Bhattacharjee
11	SREYA ROY	2017009	Sreya Roy	Sreya Roy	Sreya Roy	Sreya Roy	Sreya Roy
12	ABU ZARIN AHAMED ✗	2017022					

Department of Chemistry, Barasat Govt. College

Value Added Course: Session 2022-23

WATER POLLUTION AND ANALYSIS

Record of Attendance of the Participants

Sl. No.	NAME (in Capital Letters)	Roll No.	Signature				
			Day 1 (7.6.23)	Day 2 (8.6.23)	Day 3 (9.6.23)	Day 4 (12.6.23)	Day 5 (13.6.23)
13	MAYUKH MONDAL	2142038	M. Mondal	M. Mondal	M. Mondal	M. Mondal	M. Mondal
14	SATYAJIT DAS	2042021	Satyajit Das	Satyajit Das	Satyajit Das	Satyajit Das	Satyajit Das
15	TOUSIF AHMED MONDAL	2042045	Tousif Ahmed Mondal	Tousif Ahmed Mondal	Tousif Ahmed Mondal	Tousif Ahmed Mondal	Tousif Ahmed Mondal
16	MD SAHIL AHAMED	2042076	MD Sahil Ahamed	MD Sahil Ahamed	MD Sahil Ahamed	MD Sahil Ahamed	MD Sahil Ahamed
17	PRITAM GHOSH ✗	2042091					
18	NEHA BISWAS ✗	2042012					
19	SAGAR DEY	2042070	Sagar Dey	Sagar Dey	Sagar Dey	Sagar Dey	Sagar Dey
20	SUDHESHA DEBNATH	2051047	Sudhesha Debnath	Sudhesha Debnath	Sudhesha Debnath	Sudhesha Debnath	Sudhesha Debnath
21	SWAPNOMY MONDAL	2042080	Swapnomy Mondal	Swapnomy Mondal	Swapnomy Mondal	Swapnomy Mondal	Swapnomy Mondal
22	SHREYA DHALI	2042019	Shreya Dhali	Shreya Dhali	Shreya Dhali	Shreya Dhali	Shreya Dhali
23	PARTHA PRATIM PAL	2042109	Partha Pratim Pal	Partha Pratim Pal	Partha Pratim Pal	Partha Pratim Pal	Partha Pratim Pal

COURSE OUTCOME:The course provided both theoretical knowledge as well as hands on experimental training to students on collecting and analyzing water samples from different sources (ponds, municipal water taps, tube wells etc.). After completion of the course the students gained awareness of the chemical contaminants of ground water and their related health hazards. They also had hands on training in identifying and estimating chemical pollutants of ground water. The feedback form analysis shows that most of the students were extremely satisfied with the theoretical knowledge and experimental training provided by the course.

Details of the course content and program schedule are provided below.

Value added course on **WATER POLLUTION AND ANALYSIS**

Course Objective:

To impart job oriented skill through hands on experience of water testing and quality assessment.

Course Content:

Day 1:Theoretical classes on water resources, water cycles, causes of water pollution and related health hazards and theoretical principles of water analysis.

Day 2: Collection of water from different sources

Day 3:Theoretical classes on principle of measurement of total hardness and its removal, and measurement of pH of water.

Laboratory classes on water testing for (a) Hardness of water (b) total nitrogen content of water (Nitrates, nitrites and ammonium content) (b) Measurement of pH

Day 4: Theoretical classes on the principle of testing Arsenic content of water and its related health hazard

Laboratory classes on measurement of (a) arsenic content of water (b) BOD and Dissolved oxygen of water.

Day 5: Assessment of students through viva and written tests.

Course Outcome:

At the completion of the course the students should be:

(a) Aware of the various pollutants that can contaminate ground and surface water and their related health hazards

(b) Able to analyze chemical pollutants of water

Value added course
WATER POLLUTION AND ANALYSIS

Programme Schedule

Date	Time	Topic	Resource Person
Day 1 (7.06.2023)	10am-11am	Inauguration and Overview of the Programme	Dr. Samar Chattopadhyay (Principal) Dr. Prabir Kumar Bhattacharyya (Head of the Department) and Dr. Arup Bandyopadhyay
	11am -12.30pm	Water resources , Global crisis, water cycle, complexation in natural and waste water	Dr. Prabir Bhattacharyya
	12.30pm -2.30pm	Different sources of water pollution and related health hazards	Dr. Soma Nath Deoghoria
	2.30pm-3 pm	Recess	
	3-5pm	Methods of removing pollutants from water	Dr. Suparna Basu Chaki

Date	Time	Topic	Resource Person
Day 2 (8.06.2023)	10am-2pm	Collection of water samples	Dr. Narayan Chandra Bhar
	2pm –2.30 pm	Recess	
	2.30pm-5pm	Collection of water samples	Dr. Prabir Kumar Bhattacharyya

Date	Time	Topic	Resource Person
Day 3 (9.06.2023)	10am-12noon	Discussion on concept of pH and acidity of water	Dr. Arup Bandyopadhyay and Dr. Samrajnee Dutta
	12am -1pm	Measurement of water pH	Dr. Arup Bandyopadhyay and Dr. Samrajnee Dutta
	1pm -2.30pm	Discussion and Measurement of Hardness of water	Dr. Soma NathDeoghoria
	2.30-3pm	Recess	
	3pm-5pm	Discussion and measurement of nitrogen content of water	Dr. Jibanananda Jana

Date	Time	Topic	Resource Person
	10am-12.30pm	Discussion and measurement of arsenic content of water	Dr. Jibanananda Jana

Day 4 (12.06.2023)	12.30am -2pm	Discussion and measurement of BOD and COD of water	Dr. Ambarish Ray
	2pm-2.30	Recess	
	2.30pm-5pm	Discussion and measurement of DO of water	Dr. Suparna Basu Chaki

Date	Time	Topic	Resource Person
Day 5 (13.06.2023)	10am-12o'c lock	Hazard of As in ground water in West Bengal	Dr. Prabir Kumar Bhattacharyya
	12 o'clock -1pm	MCQ Test	Dr. Prabir Kumar Bhattacharyya
	1pm -2.30pm	Viva	and Dr. Arup Bandyopadhyay
	2.30 pm -3 pm	Recess	
	3pm-5pm	Valedictory Session and Distribution of Certificates	Dr. Samar Chattopadhyay (Principal) Dr. Prabir Kumar Bhattacharyya (Head of the Department) and Dr. Arup Bandyopadhyay

Course Coordinator: Dr. Prabir Kumar Bhattacharyya