

Certificate course on "CHEMISTRY: A SUBJECT WITH MULTIFARIOUS OPPORTUNITIES" organized by the department of Chemistry, Kharagpur College from 16th December 2022 to 7th January, 2023

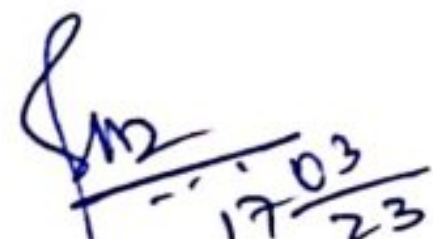
Participants list


<i>SL</i>	<i>NAME OF THE PARTICIPANTS</i>	<i>SEMESTER</i>
1	SURAJIT ADDIYA	5th
2	SASWATA MONDAL	5th
3	PALLABI BERA	5th
4	KRISHNENDU MAITY	5th
5	JOYDIP PAL	5th
6	SOUMYAJIT HAIT	5th
7	PRALAY KUMAR JANA	5th
8	ARPITA BERA	3rd
9	SATYAJIT NAYEK	3rd
10	PRASENJIT MAHATA	3rd
11	SURAJIT BISAL	3rd
12	SOMNATH SANTRA	3rd
13	DEBANJAN PARI	3rd
14	RITWIK SAHOO	3rd
15	SHREYA ROY	3rd
16	SILPA SAHOO	3rd
17	SHANKHA SUBHRA BHUNIA	3rd
18	SURAJIT MAITY	3rd
19	DEBAPRIYA MAITY	3rd
20	STHITI DAS	3rd
21	DIPA PRADHAN	3rd



Principal
Kharagpur College

22	ARPAN DUTTA	3rd
23	SK SAHIL ALI	3rd
24	AMIYA KUMAR GHORAI	3rd
25	DEBRAJ GHOSAL	3rd
26	RUDRA PRASAD SATPATI	3rd
27	SUBRATA MAITI	3rd
28	SUCHITA GHOSH	3rd
29	GAURAV DEBNATH	1st
30	ANUSPA DAS	1st
31	SHOVANWITA JANA	1st
32	BISWAJIT MANDAL	1st
33	AMIT KAREK	1st
34	PURABI DE	1st
35	SNEHASHIS SENAPATI	1st
36	SUCHETA PAUL	1st


 Dr. Subhra Mishra
 Associate Professor, Department of Chemistry
 Kharagpur College
 Jt. Coordinator


 Dr. Indranil Chakraborty
 Associate Professor, Department of Chemistry
 Kharagpur College
 Jt. Coordinator


 Principal
 Kharagpur College



दिनांक Date 17/3/23

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नाम के अ/c धारक **PRINCIPAL, KHARAGPUR COLLEGE**

सेन्डर अ/c नं. 133710100055593

ईमेल kharpurcollege@gmail.com मोब 9474384852

बिनाधिकारी का नाम Beneficiary Name Idya Sagar University

बेना अ/c नं. 17480110077832

मांग Amount		00
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 (Signature) 27/03/2023
 Principal
 Kharagpur College

Certificate Course, Department of Chemistry, Kharagpur College

TITLE - CHEMISTRY: A SUBJECT WITH MULTIFARIOUS OPPORTUNITIES

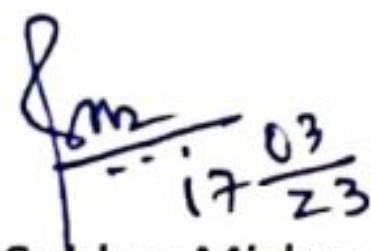
Date of Commencement: 16th December, 2022

Date of Completion: 7th January, 2023

Duration: 48 hrs

Sl No	Topic		Resource person	Theory/Practical	Duration (Hours)	Date & Time
01	Safety measures in the laboratory		Dr. Forid Saikh, Asst. Prof. Chemistry	Theory	01	22.12.22 1.30pm
02	Fundamentals of computers	MS Words	Sri Alok Halder,Asst.Prof. Comp Science	Theory	01	17.12.22 12.00 noon
		MS Excel	Sri Kousik Bhattacharya,SACT Math	Practical	02	17.12.22
				Theory	01	05.01.23
				Practical	02	1.00 pm
		Presetation in Power point, Google form	Dr.Indranil Chakraborty, Associate Prof. Chemistry	Theory	01	19.12.22
Practical	02			1.00 pm		
03	Organocatalysis: New Methodologies for Sustainable Chemistry		Dr.Bidyut Kumar Senapati, Associate Professor, Midnapore College(Autonomous)	Theory	02	23.12.22 12.00 noon
04	Computational Chemistry		Molecular modeling, Dr.Subhra Mishra, Associate Prof. Chemistry	Theory	02	16.12.22 3.00pm
			Drawing of small molecules, Dr. Forid Saikh, Asst. Prof. Chemistry	Theory	02	22.12.22 1.00pm
05	Chemical waste & management		Smt.Kuheli Pramanik, Asstt Prof. Chemistry	Theory	02	05.01.23
06	Chemistry in a click		Dr. Jayanta Samanta, Post Doc Fellow, Dartmouth College,USA	Theory (Online mode through Google Meet)	02	27.12.22
07	Learn chemistry think differently _Lecture 1		Dr.Gagan Chandra Mandal, Associate Prof. Chemistry	Theory	02	16.12.22 2.00pm
08	Learn chemistry think differently _Lecture 2		Dr.Gagan Chandra Mandal, Associate Prof. Chemistry	Theory	01	07.01.23 12.00 noon
09	Learning e resources		Sri Amit Roy, Librarian	Theory	02	20.12.22

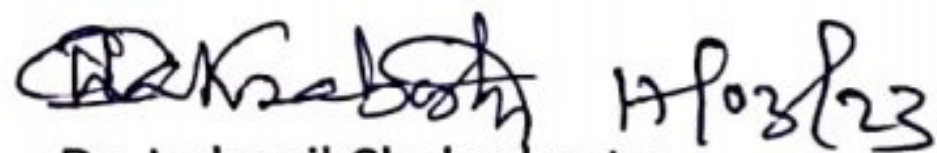
			mode through Google Meet)		3.00 pm
11	Determination of pKa of weak acid conductometrically	Prof. Prasanna Kumar Duley, Asstt Prof. Chemistry	Theory	01	03.01.23
			Practical	02	12 noon
12	Synthesis & application of polysaccharide functionalized metal nanoparticles	Dr. Ipsita Kumar Sen, Asstt Prof. Govt. General Degree College, Salboni.	Theory	02	23.12.22 1.30pm
13	Preparation of cosmetics Shampoo, Nail Polish remover, Vanishing cream etc....	Dr. Subhra Mishra, Associate Prof. Chemistry	Practical	02	03.01.21. 1.00pm
		Dr. Indranil Chakraborty, Associate Prof. Chemistry	Practical	02	04.01.23
		Dr. Forid Saikh, Asst. Prof. Chemistry	Practical	02	05.01.23
14	Chemistry in Everyday Life	Dr. Sumit Ray, Asst. Prof. Chemistry	Theory	02	04.01.22 12 noon
15	Instrumental biochemistry	Sri Subhajit Banerjee, SACT, Zoology	Theory	02	21.12.22 1.00pm
16	Bio fertilizers: A promising approach towards sustainable agriculture	Sri Kalyan Sur, SACT, Chemistry	Theory	02	03.01.23 1.00pm
17	Application of polysaccharides	Dr. Soumita Mondal, Associate Professor, Chemistry, Panskura Banamali College	Theory	02	21.12.22 1.30 pm
18	Career Opportunities in Chemistry	Dr. Sudipa Panigrahi, Director R&I Development, L'Oreal R&I USA	Theory(Online mode through Google Meet)	02	20.12.22 7.00pm


 Dr. Suphra Mishra
 Associate Professor, Department of Chemistry
 Kharagpur College
 Jt. Coordinator



①②

Kharagpur College



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 Associate Professor, Department of Chemistry
 Kharagpur College
 Jt. Coordinator

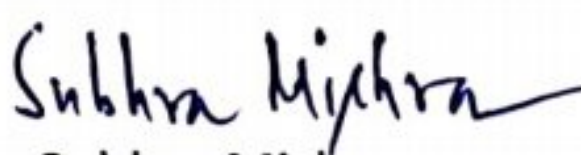
Notice Kharagpur College

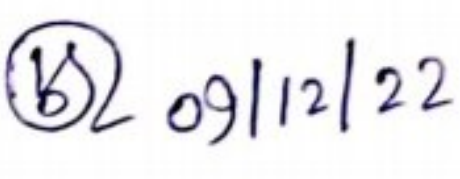
08.12.2022

Notice for payment of registration fees for the certificate course on “Chemistry: A subject with multifarious opportunities”

This is for information of all registered students of the Vidyasagar University approved certificate course (15 days) on “CHEMISTRY: A SUBJECT WITH MULTIFARIOUS OPPORTUNITIES” to submit the registration fees of Rs. 400.00 (Course fees Rs. 200/-, and application fees Rs.200/-) to the college office by 12.12.2022. The tentative date of commencement of the certificate course is 16th Dec 2022. The detailed course schedule will be intimated in due course of time.


Dr. Indranil Chakraborty
Associate Professor & Head
Department of Chemistry
Jt. Course Coordinator


Dr. Subhra Mishra
Associate Professor
Department of Chemistry
Jt. Course Coordinator


Dr. Bidyut Samanta
Principal,
Kharagpur College



Certificate course on "CHEMISTRY: A SUBJECT WITH MULTIFARIOUS OPPORTUNITIES" organized by the department of Chemistry, Kharagpur College from 16 December 2022 onwards

ATTENDANCE RECORD

SL	NAME OF THE STUDENTS	SEM	Roll							Signature
				14/12/22	03/01/23	04/01/23	05/01/23	06/01/23	07/01/23	
1	GAURAV DEBNATH	1	2019071	P	P	P	P	P	P	Gaurav Debnath.
2	ARPITA BERA	3	2119009	P	P	P	P	P	P	Arpita Bera
3	SURAJIT ADDHYA	5	2019068	P	P	ab	P	P	P	Surajit Addhya
4	ANUSPA DAS	1	2219069	P	P	P	P	P	P	Anuspa Das.
5	SASWATA MONDAL	5	2019078	P	P	P	P	P	P	Saswata Mondal
6	SHOVANWITA JANA	1	2219078	P	P	P	P	P	P	Shovanwita Jana
7	BISWAJIT MANDAL	1	2219016	P	P	P	P	P	P	Biswajit Mandal
8	AMIT KAREK	1		P	P	P	P	ab	P	Amit Karek.
9	SATYAJIT NAYEK	3	2119092	P	P	P	P	ab	P	Satyajit Nayek
10	PURABI DE	1	2219038	P	P	P	ab	P	P	Purabi De
11	PALLABI BERA	5	2019041	P	P	P	P	P	P	Pallabi Bera
12	KRISHNENDU MAITY	5	2019023	P	P	P	P	P	P	Krishnendu Maity.
13	JOYDIP PAL	5	2019074	P	P	ab	P	P	P	Joydip Pal.
14	PRASENJIT MAHATA	3	2119069	P	P	P	P	P	P	Prasenjit Mahata
15	SURAJIT BISAL	3	2119064	P	P	P	P	P	P	Surajit Bisal.
16	SOMNATH SANTRA	3	2119055	P	P	P	P	ab	P	Somnath Santra
17	SNEHASHIS SENAPATI	1	2219047	P	P	P	P	P	P	Snehashis Senapati.
18	SOURYAJIT HAIT	5	2019058	P	P	P	P	P	P	Souryajit Hait

SL	NAME OF THE STUDENTS
19	DEBANJAN PARI
20	RITWIK SAHOO
21	PRALAY KUMAR JANA
22	SHREYA ROY
23	SILPA SAHOO
24	SHANKHA SUBHRA BHUNIA
25	SURAJIT MAITY
26	DEBAPRIYA MAITY
27	STHITI DAS
28	DIPA PRADHAN
29	ARPAN DUTTA
30	SK SAHIL ALI
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32	DEBRAJ GHOSAL
33	RUDRA PRASAD SATPATI
34	SUBRATA MAITI
35	SUCHITA GHOSH
36	SUCHEETA PAUL

SEM	2024/25	2024/25	2024/25	2024/25	2024/25	2024/25	Roll No.	SIGNATURE
3	P	P	P	Ab	P	P	2119019	Debanjan Pari
3	P	P	P	P	P	P	2119034	Ritwik Sahoo
5	P	P	P	P	P	Ab	2019034	Pralay Kumar Jana
3	P	P	P	P	P	P	2119018	Shreya Roy
3	P	P		P	P	P	2119024	Silpa Sahoo
3	P	P	P	P	P	Ab	2119016	Shankha Subhra Bhunia
3	P	P	P	P	P	P	2119023	Surajit Maity
3	P	P	P	P	P	P	2119030	Debapriya Maity
3	P	P	P	P	P	P	2119039	Stिति Das
3	P	P	P	P	Ab	Ab	2119023	Dipa Pradhan
3	P	P	P	Ab	P	P	2119012	Arpan Dutta
3	P	P	P	P	P	P	2119052	SK Sahil Ali
3	P	P	P	P	P	P	2119017	Amiya Kumar Ghorai
3	P	P	P	P	P	P	2119019	Debraj Ghosal
3	P	P	P	P	Ab	Ab	2119035	Rudra Prasad Satpati
3	P	P	P	P	P	P	2119061	Subrata Maity
3	P	P	P	P	P	P	2119026	Suchita Ghosh
1	P	P	P	P	P	P	2200048	Sucheta Paul

Dr. Indranil Chakraborty
Associate Professor & Head
Department of Chemistry
Jt. Course Coordinator

Dr. Subhramishra
Associate Professor
Department of Chemistry
Jt. Course Coordinator


Certificate course on "CHEMISTRY: A SUBJECT WITH MULTIFARIOUS OPPORTUNITIES" organized by the department of Chemistry, Kharagpur College from 16 December 2022 onwards


ATTENDANCE RECORD

SL	NAME OF THE STUDENTS	SEM	Roll	16-12-22	17-12-22	19-12-22	20-12-22	21-12-22	22-12-22	23-12-22	Signature
1	GALURAV DEBNATH	1	2219024	P	P	P	P	P	P	P	
2	ARPITA BERA	3	2119009	P	P	P	P	P	P	P	<i>Arpita Bera</i>
3	SURAJIT ADHYA	5	2019068	P	P	P	P	P	Ab	P	<i>Surajit Adhya</i>
4	ANUSPA DAS	1	2219064	P	P	P	P	P	P	P	<i>Anuspa Das</i>
5	SASWATA MONDAL	5	2019048	P	P	P	P	P	P	P	<i>Saswata Mondal</i>
6	SHOVANWITA JANA	1	2219069	P	P	P	P	P	Ab	P	<i>Shovanwita Jana</i>
7	BISWAJIT MANDAL	1	2219016	P	Ab	P	P	P	P	P	<i>Biswajit Mandal</i>
8	AMIT KAREK	1									<i>Amit Karek</i>
9	SATYAJIT NAYEK	3	2119042	P	P	P	P	P	P	P	<i>Satyajit Nayek</i>
10	PURABI DE	1	2219038	P	P	P	P	P	P	P	<i>Purabi De</i>
11	PALLABI BERA	5	2019041	P	P	P	P	P	P	P	<i>Pallabi Bera</i>
12	KRISHNENDU MAITY	5	2019023	P	P	P	P	P	P	P	<i>Krishnendu Maity</i>
13	JOYDIP PAL	5	2019042	P	P	P	P	P	P	P	<i>Joydip Pal</i>
14	PRASENJIT MAHATA	3	2119064	P	P	P	P	P	P	P	<i>Prasenjit Mahata</i>
15	SURAJIT BISAL	3	2119064	P	P	P	P	P	P	P	<i>Surajit Bisal</i>
16	SOMNATH SANTRA	3	2119064	P	P	P	P	P	P	P	<i>Somnath Santra</i>
17	SNEHASHIS SENAPATI	1	2219047	P	P	P	P	P	P	P	<i>Snehashis Senapati</i>
18	SOUMYAJIT HAIT	5	2019058	P	P	P	P	P	P	P	<i>Soumyajit Hait</i>

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Dr. Indranil Chakraborty
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Department of Chemistry
Jt. Course Coordinator


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Department of Chemistry
Jt. Course Coordinator

SEM	19-20	20-21	21-22	22-23	23-24	24-25	25-26	26-27	27-28	28-29	29-30	30-31	31-32	32-33	33-34	34-35	35-36	SIGNATURE
3	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	Debanjan Pari
3	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	Ritwik Sahoo
5	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	Pralay Kumar Jana
3	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	Shreya Roy
3	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	Silpa Sahoo
3	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	Shankha Subhra Bhunia
3	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	Surajit Maity
3	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	Debapriya Maity
3	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	Sthiti Das
3	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	Dipa Pradhan
3	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	Arpan Dutta
3	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	SK Sahil Ali
3	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	Amiya Kumar Ghorai
3	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	Debraj Ghosal
3	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	Rudra Prasad Satpati
3	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	Subrata Maity
3	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	Suchita Ghosh
1	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	Sucheta Paul

SUMMARY REPORT OF THE CERTIFICATE COURSE

Topic of the Certificate Course: CHEMISTRY: A SUBJECT WITH MULTIFARIOUS OPPORTUNITIES

Organized by: Department of Chemistry, Kharagpur College.

Approved by: Centre for Continuing & Adult Education (CCAЕ), Vidyasagar University.

Duration: 16th December, 2022 to 7th January, 2023 (duration: 48 hrs).

Participants: Thirty six (36) students of B.Sc (Chemistry Honours), Kharagpur College.

Mode of delivery of course content: Hybrid mode.

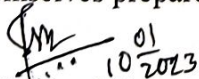
Nature of delivery: Both theoretical and practical.


Resource Persons: Eighteen (18) Resource persons were involved in the course, out of which thirteen (11) faculty members were from Kharagpur College, four (04) from other colleges affiliated to Vidyasagar University, two from industry (ITC group, Bangalore & L'Oreal R&I USA), one from Dartmouth College, USA.

Co-ordinators: Dr. Indranil Chakraborty, Associate Professor, Department of Chemistry & Dr. Subhra Mishra, Associate Professor, Department of Chemistry.

Areas covered: Safety measures in the laboratory, Fundamentals of computers, Methodologies for Sustainable Chemistry, Computational Chemistry, Chemical waste & management, Chemistry in a click, Learn chemistry think differently, Learning e resources, Conductometry, Metal nanoparticles, Application of polysaccharide, Preparation of cosmetics Shampoo, Nail Polish remover, Vanishing cream etc, Chemistry in Everyday Life, Instrumental biochemistry, Bio fertilizers, Career Opportunities in Chemistry.

Course outcome: The course has been especially meant to make the students aware of the huge openings of the subject and also the challenges to be faced therein. During the tenure of the course discussions on different topics like fundamentals of computers, computational Chemistry, waste management, sustainability, nanochemistry, instrumental biochemistry etc helped the participating students to be acquainted with the mainstream chemistry of present days. They learned how to think differently after studying Chemistry. They have also been given hands on training on some interesting cosmetics pereparation. During the interactive sessions with scientists from Industries the students came to know about job opportunities in various industries, and they have also been informed how to make themselves prepared for industries.


(Dr. Subhra Mishra)
Associate Professor, Department of
Chemistry
Kharagpur College
Jt. Coordinator

 10.01.23
(Dr. Indranil Chakraborty)
Associate Professor, Department of
Chemistry
Kharagpur College
Jt. Coordinator

**Question paper for final evaluation of
Certificate Course on Chemistry: A Subject With Multifarious Opportunities
Department of Chemistry, Kharagpur College**

F.M. : 30

Time: 1 hour

Date: 07.01.2023

Answer any 15 questions (each question carries 02 marks)

1. Name two stabilizers that can be used to prepare Ag nanoparticles.
2. What is the dimension of the metal nanoparticles?
3. What are the ingredients for preparation of shampoo?
4. What is the origin of "Click Chemistry"?
5. What is bio-fertilizer? Give two examples.
6. Name the main chemical ingredient present in toothpaste?
7. Write down the name of a proteomic tool used to generate secondary structure of a novel protein.
8. What are the ingredients for preparation of nail enamel?
9. Give two examples of green solvent.
10. Write down the structure of PVC.
11. Write down the structure of β glucan.
12. Give one example where AI is used in medical diagnosis?
13. Draw the curve for conductometric titrations of weak acid and weak base.
14. What will you do if concentrated Sulphuric acid spill on your hand?
15. What precaution will you take while handling with Bromine?
16. Why organocatalysts have advantage over conventional catalysts?
17. How will you manage chemical waste in your laboratory?
18. How will you use waste of your college hostel to produce fertilizer?
19. What are the two important applications of PPT?
20. What is earth overshoot day?

Vidyasagar University



This is to certify that

Arpita Bera

has successfully completed *15* Days/Week/Month/Year

Certificate/Diploma/PG Diploma Course in *Chemistry*:

A Subject with Multifarious Opportunities

held between *16.12.2022* and *07.01.2023* organized by

Khwaragpur College

in collaboration with the Centre for Continuing and Adult Education (CCAIE), Vidyasagar University.

Director, CCAE
Vidyasagar University



Course Coordinator(s)