



CRITERION	II	Teaching-Learning and Evaluation
KEY INDICATOR	2.3	Teaching - Learning Process
METRIC	2.3.1	Student-centric methods such as experiential learning, participative learning and problem-solving methodologies are used for enhancing learning experiences:

DEPARTMENT OF CHEMISTRY

Introduction

The ultimate purpose of student-centered techniques, such as experiential learning, participative learning, and problem-solving methodologies used at our institution, is to increase each learner's involvement in the learning process while also improving the learning process's outcome. Departments assist students in developing the skills, information, attitudes, and values necessary for acceptable behaviour. The department provides unique programs that encourage student creativity, problem-solving skills, and active learning. The department uses student-centered techniques to help students build their lifetime learning skills. Faculty members engage students in interactive learning by encouraging them to participate in group discussions, role-playing, subject quizzes, news analysis, discussion, and questions and answers on current events.

By implementing student-centric methodologies, Students should acquire skills, knowledge, attitude, values to compete the world. To attain this, we should provide learning through experiential, participative and problem-solving methodologies.

Faculty members make efforts in making the learning activity more interactive by adopting the student-centric methods.

1. **Experiential Learning:** Department conducts various activity to support students in experiential learning. The department imparts the following experiential learning practices to enhance creativity and cognitive levels of the students – conducting Internship and Industrial training program to Students in the fields of chemistry. An internship helps them practically and to gain skills which can be applied to future jobs. Industrial Visits to help us to learn the real working process and to realize the working environment.



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2. Participatory Learning: The objective of participatory learning is to give the exposure to learn and imbibe new skills for students through seminars, group discussion and skill-based activities.

3. Problem-solving methods: Departments encourage students to acquire and develop problem-solving skills through projects and assignments. We conduct learning activities for the students like role play, debate and stimulation. It will be helpful to enrich their knowledge.

The department allows Post graduate students to attend various seminar and conference to enhance their research activity and to publish their research findings. The Department has constantly shown progress towards the benefit of the students.

	2.3.1(A) PARTICIPATIVE LEARNING	2.3.1(B) EXPERIENTIAL LEARNING	Problem Solving 2.3.1(C)
1	Seminar and Event Participation	Industrial Visit	Review Presentation
2	Group Discussion for Question Paper Analysis	Certificate course	
3	Career Guidance and Counselling	CHEMTAX FIESTA 2023	
4	Seminar and Event Participation	Practical Expertise Program	



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PARTICIPATIVE LEARNING

1. Seminar and Event Participation- Two Day Workshop on NMR Spectroscopy and Advanced Material Characterization.

Programme Objective: To develop confidence and understand challenges & opportunities in their academic program

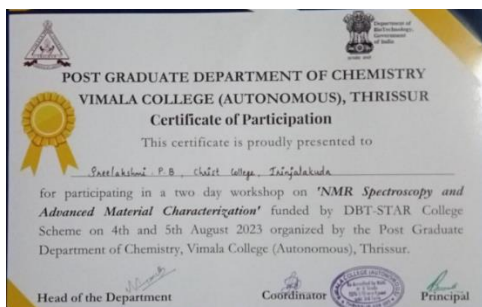
Programme Report: On 4th and 5th August 2023, nine students of First year MSc CHEMISTRY (Self Financing) participated in two-day workshop organised by the PG chemistry department of Vimala College Autonomous Thrissur. The programme was conducted at Marian Hall of Vimala College. The theme highlights the importance of various advanced material characterization techniques in Terms of principle, instrumental components, Working mechanism and applications.

Programme Attainment: The workshop Provides an overview of theory, instrumentation and applications of Nuclear Magnetic Resonance Spectroscopy. It also covers the major analytical techniques for material characterization (XRD, UV- Visible Spectroscopy, Transmission Electron Microscopy) with special emphasis basic theories, functions of instruments and also the tips for data interpretation. Hence, this workshop would be a great platform for the interaction of students with skilled manpower and experts to gain expertise.





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VIMALA COLLEGE AUTONOMOUS, THRISSUR
POST GRADUATE DEPARTMENT OF CHEMISTRY

TWO DAY WORKSHOP ON NMR SPECTROSCOPY AND ADVANCED MATERIAL CHARACTERIZATION

14 & 15 AUGUST 2023

REGISTER NOW

CONTACT US
chemistry@vimalacollege.edu.in

RESOURCE PERSONS

DR. SIBINY KURUVASE
Former Vice President, Head of the Department, St Thomas College, Palai

DR. SURESHA NAVEEN
Kerala Government Polytechnic Institute, Punalur

ABOUT THE WORKSHOP

DBT STAR College Scheme

ORGANIZING COMMITTEE

Principal: Dr. Dr. Suresh Kumar
Head of the Department: Dr. Sibiny Kuruvase
Coordinator: Dr. JJ Abraham

OTHER MEMBERS:
Dr. J. Sreedhar, Ms. Suleen Samuel, Dr. Binny Jacobson, Ms. Nishita K C, Dr. Raju P Mathan, Ms. Anvika S George, Dr. Sushanth P Kuttar, Ms. Satya C S

ATTENDANCE SHEET

NAME OF THE EVENT: TWO DAY WORKSHOP ON NMR SPECTROSCOPY AND ADVANCED MATERIAL CHARACTERIZATION

DATE: 14/08/2023 to 15/08/2023

Sl.NO	Name of student	Register number	Signature
1	ARTHATHILAL DAS	CCAXMCH017	[Signature]
2	ANGELA SUNIL	CCAXMCH014	[Signature]
3	ANGELINA WILSON	CCAXMCH019	[Signature]
4	ANVIN P. DINALY	CCAXMCH020	[Signature]
5	AJGUSTINE JOYDRA K	CCAXMCH021	[Signature]
6	GENIA ELIZABETH D	CCAXMCH022	[Signature]
7	GOURU NEELAKUMAR	CCAXMCH023	[Signature]
8	HARNA K	CCAXMCH024	[Signature]
9	JERINA WARSON	CCAXMCH025	[Signature]
10	SIMHANEZ FATHIMA M M	CCAXMCH026	[Signature]
11	INDEHA ANIL KUMAR	CCAXMCH027	[Signature]
12	SHREELAKSHI P D	CCAXMCH028	[Signature]
13	SURESH BANAL	CCAXMCH029	[Signature]

2. Seminar and Event Participation- One Day Seminar/Invited Lecture on NANOTECHNOLOGY FOR ENERGY AND ENVIRONMENT

Programme Objective: To develop confidence and understand challenges & opportunities in Nanotechnology

Programme Report: On 14 th August 2023, Department of Chemistry (SF) Organized an Invited Lecture in connection with Merit Day Program at Jose Thekkan seminar hall of Christ college Autonomous Irinjalakkuda. The programme named LAUREATE started at 9.30 am.

The chief guest of the day was Dr. Nisha.T. Padmanabhan, (Post-Doctoral Fellow, IUCND CUSAT). Associate Prof. Sheeba Varghese (Vice Principal Christ College), Dr. T Vivekanandhan (Coordinator of Self-financing programs), Dr. V.T Joy (Head of the Department Chemistry), Ms. Greeni KI (Program coordinator Department of Chemistry Self), Ms. Krishna Priya and Dr Bhagyesh VB Spoke on location.

Programme Attainment:



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METRIC	2.3.1	Student-centric methods such as experiential learning, participative learning and problem-solving methodologies are used for enhancing learning experiences:

Nanotechnology can offer many benefits and opportunities for innovation and development

Nanotechnology can also address some of the global challenges and needs, such as water scarcity, food security, climate change, and health equity. Nanotechnology is helping inform the development of alternative energy sources, such as solar and wind power. The workshop Provides This workshop would be a great platform for the interaction of students with skilled manpower and experts to gain expertise.





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ATTENDANCE SHEET

NAME OF THE EVENT: ONE DAY SEMINAR - NANO TECHNOLOGY FOR CHEM STRONG

DATE: 14/04/2023

Sl No	Name of student	Register number	Signature
1	ABHIMATHAL DAS	CCAXMCH017	[Signature]
2	ANGHA BUNJ	CCAXMCH018	[Signature]
3	ANGELINA WILSON	CCAXMCH019	[Signature]
4	ANVIN P STARBY	CCAXMCH020	[Signature]
5	AUGUSTINE JOYSONK	CCAXMCH021	[Signature]
6	DENNA ELIZABETH D	CCAXMCH022	[Signature]
7	DOURE REAJUNAVAR	CCAXMCH023	[Signature]
8	HANNA K	CCAXMCH024	[Signature]
9	JESNA INARSON	CCAXMCH025	[Signature]
10	SHAHANAZ FATHIMA M M	CCAXMCH026	[Signature]
11	SINDHA ANIL KUNJAR	CCAXMCH027	[Signature]
12	SREELAKSHMI P. B	CCAXMCH028	[Signature]
13	SREERAG DHANU	CCAXMCH029	[Signature]

Sl NO	Roll No	Reg no	Name	Batch	Signature
1	305	CCAWMCH015	AKSHAYA RAMACHANDRAN	MSC CHE SF 2022	[Signature]
2	306	CCAWMCH016	AMRUTHA P.NL	MSC CHE SF 2022	[Signature]
3	307	CCAWMCH017	ANITHA T.V	MSC CHE SF 2022	[Signature]
4	308	CCAWMCH018	ANIN MARIYA K P	MSC CHE SF 2022	[Signature]
5	309	CCAWMCH019	ANUGRAHA C.R	MSC CHE SF 2022	[Signature]
6	310	CCAWMCH020	APARNA P.R	MSC CHE SF 2022	[Signature]
7	311	CCAWMCH021	JIVA K.J	MSC CHE SF 2022	[Signature]
8	312	CCAWMCH022	JIVA SHAJU	MSC CHE SF 2022	[Signature]
9	313	CCAWMCH023	KEERTHANA SURESH	MSC CHE SF 2022	[Signature]
10	314	CCAWMCH024	NAVITHA HYDROSE	MSC CHE SF 2022	[Signature]
11	315	CCAWMCH025	NIVEDIYA N	MSC CHE SF 2022	[Signature]
12	316	CCAWMCH026	SAHILA.S.S	MSC CHE SF 2022	[Signature]
13	317	CCAWMCH027	SREELAKSHMI K.P	MSC CHE SF 2022	[Signature]
14	318	CCAWMCH028	SUMANYA M.S	MSC CHE SF 2022	[Signature]
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3. Group Discussion for Question Paper Analysis

Programme Objective:

- Develops confidence and time management skills through online exams or quizzes for competitive exams
- Better academic performance in semester examinations.

Programme Report: On September 8, 2023, First-Semester students solve previous year's question papers. We divide students into groups and assign them different topics. They took one day to solve the question and submit their answers as an assignment.

Programme Attainment:

To develop critical thinking skills, improve communication skills

To increase self-confidence and build teamwork.



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ASYMMETRIC SYNTHESIS

PART A

1. Distinguish between stereoselectivity and stereospecificity.
2. What is a chiral pool synthesis?
3. Explain the Felkin-Ahn model for Cram's rule. Use Structural diagram.
4. What is Burgi-Dunitz angle? Illustrate using figure.
5. What was Anh's revision to Felkin model of 1,2-asymmetric induction?
6. What are chiral auxiliaries? Give any two examples.
7. Illustrate the use of Evans oxazolidinone as chiral auxiliary in alkylation reaction.
8. Illustrate the use of Evans oxazolidinone as chiral auxiliary in Diels-Alder reaction.
9. Write a note on Sharpless Epoxidation
10. Write a note on Sharpless dihydroxylation
11. Discuss the role of BINAL-H as chiral reagent.
12. Discuss the role of CBS as chiral catalyst.
13. What do you mean by double diastereoselection?
14. How will you prepare E-enolate and Z-enolate for asymmetric aldol reaction?

PART B

1. What is chiral pool? Illustrate with a suitable example. What is its significance relation in asymmetric synthesis?
2. Illustrate the stereoselective and stereospecific reactions using two examples each.
3. Discuss the Felkin-Ahn model of Cram's rule in predicting the stereoselective course of the reaction of Grignard reagents with chiral aldehyde.
4. Predict the major product in the reduction of (R)-2-phenyl propanaldehyde using LiAlH₄ based on (i) Cram's rule and (ii) Felkin-Ahn model.
5. Predict the major product in the reduction of (R)-2-methoxy propanaldehyde using LiAlH₄ based on Cram's rule
6. Illustrate the use of SAMP and RAMP as chiral auxiliary in the alkylation reaction.
7. Illustrate the use of Oxazolidones as chiral auxiliary in (i) alkylation and (ii) Diels-Alder reactions
8. Illustrate 1,4 asymmetric induction using a suitable example.
9. Discuss the stereochemistry involved in Sharpless's asymmetric epoxidation.

4. Career Guidance and Counselling

Programme Objective: The main motive of the interview was to develop interview strategies and to enhance communication skills for the students. Better Oral and Communication skills through seminars and Group discussions.

Programme Report: PG department of chemistry self-financing organized a career guidance program on 2nd and 3rd November 2023. A team of mentors were invited which included a group of Rony Paul, Jewel Mathew, Simy Rosy and Mancy Joy and IELTS Trainor Anne Thomas. Along with Sr. Angel Rose who holds a PhD in physics. On 2nd November, we organise a Mock Interview for First-year MSc Chemistry students (2023-2025 Batch). The panel members interviewed each student for half an hour. Thereby they taught us how to answer challenging questions and to ease the nerves that may experience before an actual interview. Also, they trained us to prepare an impressive CV/Resume.

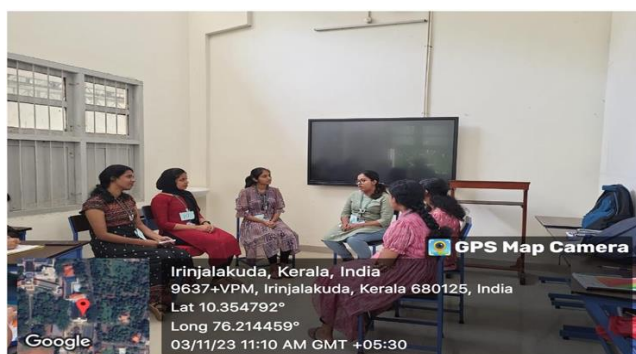


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On 3rd November, we organise a Career Guidance Program for Second-Year MSc Chemistry students (2022-2024 Batch). The whole program was conducted in two sessions in which the first session was group discussion for which the class was divided into two groups and each group was given a topic 5 minutes before the discussion. After the group discussion, the judges gave their remarks on the performance of the students. In the second session, the team gave us an insight about how to appear for interview, how to prepare a standard resume as well as introduced us to the careers after MSc chemistry.

Programme Attainment:

Students gained practical experience by participating in hands-on sessions covering topics like sequence alignment, biological databases, and gene prediction methods. This exposure enhances their skill





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ATTENDANCE SHEET

NAME OF THE EVENT: CAREER GUIDANCE & COUNSELLING
DATE: 02/11/2023 to 03/11/2023

Sl No	Name of student	Register number	Signature
1	AMITHAMITHAL DAS	CCAXMCH017	[Signature]
2	ANAGHA SUNIL	CCAXMCH018	[Signature]
3	ANGELENA WILSON	CCAXMCH019	[Signature]
4	ANVIN P STANLY	CCAXMCH020	[Signature]
5	AUGUSTINE JOYSON,K	CCAXMCH021	[Signature]
6	DENNA ELIZABETH D	CCAXMCH022	[Signature]
7	GOURI REJUKUMAR	CCAXMCH023	[Signature]
8	HANNA K	CCAXMCH024	[Signature]
9	JESNA WARSON	CCAXMCH025	[Signature]
10	SHAHANAZ FATHIMA M M	CCAXMCH026	[Signature]
11	SNEHA ANIL KUMAR	CCAXMCH027	[Signature]
12	SREELAKSHMI P. B	CCAXMCH028	[Signature]
13	SREERAG SHANIL	CCAXMCH029	[Signature]

NAME OF THE EVENT: CAREER GUIDANCE & COUNSELLING
DATE: 02 November 2023 to 03 November 2023

Sl No	Roll No	Reg no	Name	Batch	Signature
1	305	CCAXMCH015	AKSHAYA RAMACHANDRAN	MSC CHE SF 2022	[Signature]
2	306	CCAXMCH016	AMRUTHA P.NL	MSC CHE SF 2022	[Signature]
3	307	CCAXMCH017	ANUTHA T.V	MSC CHE SF 2022	[Signature]
4	308	CCAXMCH018	ANN MARIYA K.P	MSC CHE SF 2022	[Signature]
5	309	CCAXMCH019	ANUGRAHA C.B	MSC CHE SF 2022	[Signature]
6	310	CCAXMCH020	APARNA P.B	MSC CHE SF 2022	[Signature]
7	311	CCAXMCH021	JIVA K.J	MSC CHE SF 2022	[Signature]
8	312	CCAXMCH022	JIVA SHAJU	MSC CHE SF 2022	[Signature]
9	313	CCAXMCH023	KEERTHANA SURESH	MSC CHE SF 2022	[Signature]
10	314	CCAXMCH024	NAMITHA HYDROSE	MSC CHE SF 2022	[Signature]
11	315	CCAXMCH025	NIVEDIYA N	MSC CHE SF 2022	[Signature]
12	316	CCAXMCH026	SAHRA S.S	MSC CHE SF 2022	[Signature]
13	317	CCAXMCH027	SREELAKSHMI K.P	MSC CHE SF 2022	[Signature]
14	318	CCAXMCH028	SUMAYYA M.S	MSC CHE SF 2022	[Signature]
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EXPERIENTIAL LEARNING

1. Industrial Visit

Programme Objective:

- To interact and learn from experts in industry
- Learning management concepts
- Improves their job prospects

Programme Report: On 6th March of 2024, we the 2nd Semester MSc Chemistry (SF) students of Christ College (Autonomous), Irinjalakuda visited the Bionest Biotech Incubation Centre, Ernakulam, Kerala, India and the Sophisticated Analytical Instruments Facility (SAIF) in STIC, CUSAT, Cochin, Kerala, India.

Students get an opportunity to familiarising with varieties of instruments such as HPLC, GC and Spray Drier and understanding the different start-up units at Bionest Kalamassery. Bionest offers common equipment and facilities like tissue culture, analytical and QC laboratories, with funding



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support from Department of Biotechnology, Government of India. From the SAIF lab, they were able to become acquainted with sophisticated instruments such as FT-NMR, XRD, SXRD, SEM, TEM, XRD, ICP-AES, and Mass Spectrometer.

Programme Attainment:

Industrial visit allows students to have hands-on experience with genuine machinery, workstations, systems, factories, assembly lines, and more, as well as learn how the system works from industry experts.

Such actual teaching is critical for students who have always learned through imagination. Students also learn about the company's production and operational procedures, which they can relate to based on what they have learned in the curriculum.





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ATTENDANCE SHEET

NAME OF THE EVENT: INDUSTRIAL VISIT
DATE: 06/03/2024

Sl NO	Name of student	Register number	Signature
1	AMITHAMITHAL DAS	CCAXMCH017	
2	ANAGHA SUNIL	CCAXMCH018	
3	ANGELENA WILSON	CCAXMCH019	
4	ANVIN P. STANLY	CCAXMCH020	
5	AUGUSTINE JOYSON.K	CCAXMCH021	
6	DENNA ELIZABETH D	CCAXMCH022	
7	GOURI REJUKUMAR	CCAXMCH023	
8	HANNA K	CCAXMCH024	
9	JESNA WARSON	CCAXMCH025	
10	SHAHANAZ FATHIMA M M	CCAXMCH026	
11	SNEHA ANIL KUMAR	CCAXMCH027	
12	SREELAKSHMI.P.B	CCAXMCH028	
13	SREERAG SHANIL	CCAXMCH029	

FACULTY
R. Ms. Fanny Francis
S. Ms. Rosendo Davis

2. Certificate Course- Basic Chemistry Software's

Programme Objective: To imparting skills on use of various open-source chemistry tools that are essential for any student or researcher with chemistry as a major subject.

Programme Report: The course officially began on January 5, 2024. The program involved 13 M.Sc. First year (2023-2025 batch) students, all of whom finished the course. The course was 30 hours long. The classes were taught both practically and theoretically. Students found the question-and-answer session highly engaging and enlightening. Invited speaker of the program was Dr. Safna Hussan K.P, Amala Cancer Research Centre Thrissur.

Programme Attainment:



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METRIC	2.3.1	Student-centric methods such as experiential learning, participative learning and problem-solving methodologies are used for enhancing learning experiences:

Students indicated pleasure with the course. Students learned about chemistry tools such as Chemsketch, Chemdraw, Avogadro, Gaussian, and others, as well as theoretical components of computational chemistry like the z-matrix. This course teaches students how to create chemical structures, give them names, access information on physical attributes, perform calculations, three-dimensional molecular structure calculations, spectroscopic signatures, and predict chemical reaction routes, among other things. By the end of the course, students will be able to apply these open-source tools to their own work and projects.

CHRIST
COLLEGE (AUTONOMOUS)
IRINJALAKUDA, KERALA
Reaccredited by NAAC with 'A++' grade

**CERTIFICATE COURSE ON
BASIC CHEMISTRY SOFTWARES**
Department of Chemistry Self

Fee 10000

PROGRAM HIGHLIGHTS

- THEORY AND PRACTICAL SESSIONS
- LECTURE INCLUDE DOWNLOADING AND INSTALLATION OF SOFTWARES
- HANDS ON TRAINING
- CANDIDATE CAN USE OPEN-SOURCE SOFTWARE'S INDEPENDENTLY

Certificate will be issued to successful candidate

ELIGIBILITY
BSc. Chemistry final year students & MSc Chemistry students

FOR DETAILS CONTACT
Ms. Krishnapriya KM
(Course Incharge) 8021092700

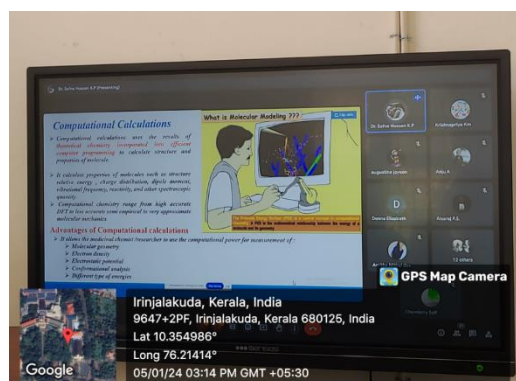
CHRIST
COLLEGE (AUTONOMOUS)
IRINJALAKUDA, KERALA

DEPARTMENT OF CHEMISTRY (SELF)
CERTIFICATE OF PARTICIPATION
Date: 31-05-2023

This is to certify that
Mr/Ms. Akhaya Ramachandran
has successfully completed 30-hour course on "Basic Chemistry Software's"
with A grade, conducted by Department of Chemistry (Self),
Christ college (Autonomous) Irinjalakuda, Thrissur.

Ms. Greeni K I
Program Coordinator

Rev. Fr. Dr. Jolly Andrews CMI
Principal





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ATTENDANCE SHEET

NAME OF THE EVENT: CERTIFICATE COURSE
DATE: 05 JAN 2024

Sl NO	Name of student	Register number	Signature
1	AMITHAMITHAL DAS	CCAXMCH017	
2	ANAGHA SUNIL	CCAXMCH018	
3	ANGELENA WILSON	CCAXMCH019	
4	ANVIN P STANLY	CCAXMCH020	
5	AUGUSTINE JOYSON K	CCAXMCH021	
6	DENNA ELIZABETH D	CCAXMCH022	
7	GOURI REJUKUMAR	CCAXMCH023	
8	HANNA K	CCAXMCH024	
9	JESNA WARSON	CCAXMCH025	
10	SHAHANAZ FATHIMA M M	CCAXMCH026	
11	SNEHA ANIL KUMAR	CCAXMCH027	
12	SREELAKSHMI P. B	CCAXMCH028	
13	SREERAG SHANIL	CCAXMCH029	

3. Certificate Course- Types of Chemical Analysis

Programme Objective: To imparting skills on use of various open-source chemistry tools that are essential for any student or researcher with chemistry as a major subject.

Programme Report: The course started formally on January 16, 2024. The program included 14 M.Sc. Second-year (2022-2024 Batch) students, all of whom successfully completed the course. The entire course lasted 30 hours. The classes were delivered both practically and theoretically. The question-and-answer session was really interesting and informative for the students.

Programme Attainment: Students indicated pleasure with the course. Students learned about chemistry tools such as Chems sketch, Chemdraw, Avogadro, Gaussian, and others, as well as theoretical components of computational chemistry like the z-matrix. This course teaches students how to create chemical structures, give them names, access information on physical attributes, perform calculations, three-dimensional molecular structure calculations, spectroscopic



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signatures, and predict chemical reaction routes, among other things. By the end of the course, students will be able to apply these open-source tools to their own work and projects.

CHRIST
COLLEGE (AUTONOMOUS)
IRINJALAKUDA, KERALA
Reaccredited by NAAC with 'A+++' grade
Department of Chemistry Self

TYPES OF CHEMICAL ANALYSIS

PROGRAM HIGHLIGHTS

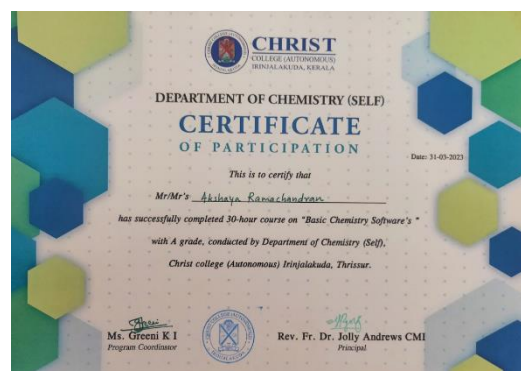
- Theory and practical sessions
- Understand quantity control in food processing
- Understand water quality parameter and soil analysis
- Knowledge about analysis of ayurvedic medicine

Eligibility
MSc Chemistry students

Fee 1000₹

Certificate will be issued to the successful candidate

FOR DETAILS CONTACT
Dr. Bhagyesh VB
(Course incharge)9995063010





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METRIC	2.3.1	Student-centric methods such as experiential learning, participative learning and problem-solving methodologies are used for enhancing learning experiences:

NAME OF THE EVENT: CERTIFICATE COURSE - TYPES OF CHEMICAL ANALYSIS
DATE: 16/10/2024

SL NO	Roll No	Reg no	Name	Batch	Signature
1	305	CCAWMCH015	AKSHAYA RAMACHANDRAN	MSC CHE SF 2022	<i>A.P.S</i>
2	306	CCAWMCH016	AMRUTHA P.N.	MSC CHE SF 2022	<i>Amrutha</i>
3	307	CCAWMCH017	ANITHA T V	MSC CHE SF 2022	<i>Anitha</i>
4	308	CCAWMCH018	ANN MARIYA K P	MSC CHE SF 2022	<i>Ann</i>
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7	311	CCAWMCH021	JIYA K J	MSC CHE SF 2022	<i>Jiya</i>
8	312	CCAWMCH022	JIYA SHAIJU	MSC CHE SF 2022	<i>Jiya</i>
9	313	CCAWMCH023	KEERTHANA SURESH	MSC CHE SF 2022	<i>Keertana</i>
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11	315	CCAWMCH025	NIVEDIYA N	MSC CHE SF 2022	<i>Nivediya</i>
12	316	CCAWMCH026	SAHLA S S	MSC CHE SF 2022	<i>Sahla</i>
13	317	CCAWMCH027	SREELAKSHMI K P	MSC CHE SF 2022	<i>Sreelakshmi</i>
14	318	CCAWMCH028	SUMAYYA M S	MSC CHE SF 2022	<i>Sumayya</i>
15					

4. Practical Expertise Program- Clean & Crafty Workshop

Programme Objective: To Providing the knowledge on the production of household cleaning product.

Programme Report: The staff and students of the Chemistry department (self), Christ College, Thrissur organized a workshop “Clean and Crafty” for the young and motivated minds on 20th December 2023. It was an inter department programme. All were very interested and attended it with high enthusiasm. The programme was welcomed by Dr. Bhagyesh VB, Faculty of chemistry department and led by Ms. Greeni KI, HOD of chemistry department. The highlight of the programme was making dish wash and other sanitary products such as Soap, Detergent, Floor cleaner, Hand wash and toilet cleaner

Programme Attainment:

This workshop was to be a great platform for attaining good knowledge about the sanitary product preparation. This effort not only provided individuals with practical skills, but it also fostered environmental awareness and a change toward more sustainable living patterns.



CHRIST

COLLEGE (AUTONOMOUS)
IRINJALAKUDA, KERALA

P.O. Irinjalakuda North, 680125

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http://christcollegeijk.edu.in

CRITERION	II	Teaching-Learning and Evaluation
KEY INDICATOR	2.3	Teaching - Learning Process
METRIC	2.3.1	Student-centric methods such as experiential learning, participative learning and problem-solving methodologies are used for enhancing learning experiences:

CHRIST COLLEGE (AUTONOMOUS) IRINJALAKUDA
DEPARTMENT OF CHEMISTRY (SELF)
Organizing a **WORKSHOP**
CLEAN & CRAFTY
At CHEMISTRY LAB (UNAIDED)
DECEMBER - 20 1.30-4.00 PM

Register Now 100₹ Contact and G-Pay 8943829624

	We Make	Market Price
TRANSPARENT SOAP	1No/20.	1No/40
DETERGENT (POWDER)	1Kg/60.	1Kg/120
HAND WASH	1L/70.	1L/160
DISH WASH	1L/70.	1L/120
FLOOR CLEANER	1L/50.	1L/100
TOILET CLEANER	1L/60.	1L/100



ATTENDANCE SHEET
NAME OF THE EVENT: CLEAN & CRAFTY WORKSHOP
DATE: 20-12-2023

Sl No	Name of student	Register number	Signature
1	AMITHAMITHAL DAS	CCAXMCH017	[Signature]
2	ANAGHA SUNIL	CCAXMCH018	[Signature]
3	ANGELINA WILSON	CCAXMCH019	[Signature]
4	ANVIN P STANLY	CCAXMCH020	[Signature]
5	AUGUSTINE JOYSON.K	CCAXMCH021	[Signature]
6	DENNA ELIZABETH D	CCAXMCH022	[Signature]
7	GOURI REJUKUMAR	CCAXMCH023	[Signature]
8	HANNA K	CCAXMCH024	[Signature]
9	JESNA WARSON	CCAXMCH025	[Signature]
10	SHAHANAZ FATHIMA M M	CCAXMCH026	[Signature]
11	SNEHA ANIL KUMAR	CCAXMCH027	[Signature]
12	SREELAKSHMI P. B	CCAXMCH028	[Signature]
13	SREERAG SHANIL	CCAXMCH029	[Signature]

NAME OF THE EVENT: CLEAN & CRAFTY WORKSHOP
DATE: 20-12-2023

Sl No	Roll No	Reg no	Name	Batch	Signature
1	305	CCAXMCH015	AISHAYA RAMACHANDRAN	MSC CHE SF 2022	[Signature]
2	306	CCAXMCH016	AMRUTHA P.N	MSC CHE SF 2022	[Signature]
3	307	CCAXMCH017	ANUTHA T V	MSC CHE SF 2022	[Signature]
4	308	CCAXMCH018	ANNI MARIYA K P	MSC CHE SF 2022	[Signature]
5	309	CCAXMCH019	ANUJRAHA C.R	MSC CHE SF 2022	[Signature]
6	310	CCAXMCH020	APARNA P B	MSC CHE SF 2022	[Signature]
7	311	CCAXMCH021	JIVA K J	MSC CHE SF 2022	[Signature]
8	312	CCAXMCH022	JIVA SHAU	MSC CHE SF 2022	[Signature]
9	313	CCAXMCH023	KEERTHANA SURESH	MSC CHE SF 2022	[Signature]
10	314	CCAXMCH024	NAMITHA HYNDSE	MSC CHE SF 2022	[Signature]
11	315	CCAXMCH025	NIVEDYA N	MSC CHE SF 2022	[Signature]
12	316	CCAXMCH026	SAHJASA S	MSC CHE SF 2022	[Signature]
13	317	CCAXMCH027	SREELAKSHMI K P	MSC CHE SF 2022	[Signature]
14	318	CCAXMCH028	SUJANYA M S	MSC CHE SF 2022	[Signature]
15					
16					



CRITERION	II	Teaching-Learning and Evaluation
KEY INDICATOR	2.3	Teaching - Learning Process
METRIC	2.3.1	Student-centric methods such as experiential learning, participative learning and problem-solving methodologies are used for enhancing learning experiences:

5. CHEMTAX FIESTA 2023

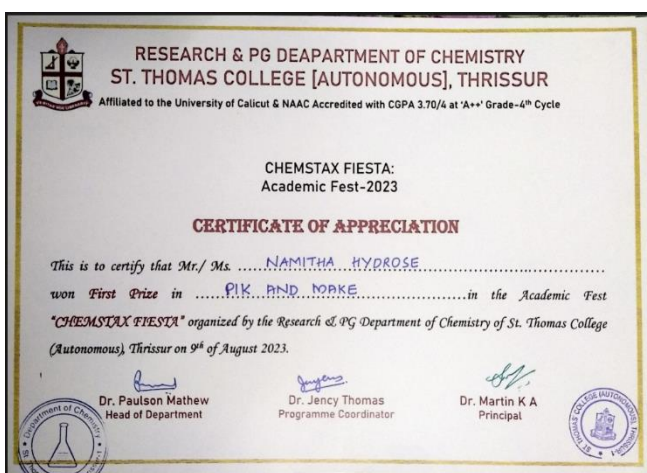
Programme Objective: To develop critical thinking, scientific temper and foster spirit of inquiry

Programme Report: On 8th and 9th August 2023, our students of First year and Second year MSC CHEMISTRY (Self Financing) participated in one-day workshop organised by the Department of Chemistry St Thomas College Autonomous Thrissur. The theme highlights the importance of chemistry and identifying chemical apparatus and methods.

We got first in memory test and second place in the Quiz competition.

Programme Attainment:

- Students will be able to design and carry out scientific experiments
- Students will develop problem-solving skills and apply critical thinking to scientific problems
- They will understand ethical behaviour related to chemical handling, environmental issues and societal challenges.





CRITERION	II	Teaching-Learning and Evaluation
KEY INDICATOR	2.3	Teaching - Learning Process
METRIC	2.3.1	Student-centric methods such as experiential learning, participative learning and problem-solving methodologies are used for enhancing learning experiences:

ATTENDANCE SHEET

NAME OF THE EVENT: CHEM-TAX FIESTA 2023
DATE: 07/08/2023

Sl NO	Name of student	Register number	Signature
1	AMTHAMITHAL DAS	CCAXMCH017	<i>[Signature]</i>
2	ANAGHA SUNIL	CCAXMCH018	<i>[Signature]</i>
3	ANGELENA WILSON	CCAXMCH019	<i>[Signature]</i>
4	ANVIN P STANLY	CCAXMCH020	<i>[Signature]</i>
5	AUGUSTINE JOYSON K	CCAXMCH021	<i>[Signature]</i>
6	DENNA ELIZABETH D	CCAXMCH022	<i>[Signature]</i>
7	GOURI REJUKUMAR	CCAXMCH023	<i>[Signature]</i>
8	HANNA K	CCAXMCH024	<i>[Signature]</i>
9	JESNA WARSON	CCAXMCH025	<i>[Signature]</i>
10	SHAHANAZ FATHIMA M M	CCAXMCH026	<i>[Signature]</i>
11	SNEHA ANIL KUMAR	CCAXMCH027	<i>[Signature]</i>
12	SREELAKSHMI P. B	CCAXMCH028	<i>[Signature]</i>
13	SREERAG SHANIL	CCAXMCH029	<i>[Signature]</i>



PROBLEM SOLVING METHODS

1. Review Presentation

Programme Objective: To imparting skills on use of various open-source chemistry tools that are essential for any student or researcher with chemistry as a major subject.

Programme Report: The course started on 25th January 2023. There were 14 M.Sc. 1st year students participated in the program and all are completed the course. The duration of the course was 30 hrs. The classes were taken as both practical and theory session. The doubt clearing session was very interesting and informative for students.

Programme Attainment:

Students expressed satisfaction with the class. Students were taught about chemistry software such as ChemsSketch, ChemDraw, Avogadro, Gaussian, and others, as well as the theoretical aspects of computational chemistry such as the z-matrix. This course teaches students how to draw chemical structures, generate names for them, retrieve information about physical properties, perform



CRITERION	II	Teaching-Learning and Evaluation
KEY INDICATOR	2.3	Teaching - Learning Process
METRIC	2.3.1	Student-centric methods such as experiential learning, participative learning and problem-solving methodologies are used for enhancing learning experiences:

calculations, three-dimensional molecular structure calculations, spectroscopic signatures, predict chemical reaction pathways, and other parameters. By the end of the course, students will be able to use these open-source software's for their own work and projects.

NAME OF THE EVENT: REVIEW PRESENTATION
DATE: 29-09-2022 to 11/10/2022

SL NO	Roll No	Reg no	Name	Batch	Signature
1	305	CCAWMCH015	AKSHAYA RAMACHANDRAN	MSC CHE SF 2022	[Signature]
2	306	CCAWMCH016	AMRUTHA P.N.	MSC CHE SF 2022	[Signature]
3	307	CCAWMCH017	ANITHA T.V	MSC CHE SF 2022	[Signature]
4	308	CCAWMCH018	ANN MARIYA K.P	MSC CHE SF 2022	[Signature]
5	309	CCAWMCH019	ANUGRAHA C.R	MSC CHE SF 2022	[Signature]
6	310	CCAWMCH020	APARNA P.R	MSC CHE SF 2022	[Signature]
7	311	CCAWMCH021	JIVA K.J	MSC CHE SF 2022	[Signature]
8	312	CCAWMCH022	JIYA SHAJU	MSC CHE SF 2022	[Signature]
9	313	CCAWMCH023	KEERTHANA SURESH	MSC CHE SF 2022	[Signature]
10	314	CCAWMCH024	NAMITHA HYDROSE	MSC CHE SF 2022	[Signature]
11	315	CCAWMCH025	NIVEDIYA N	MSC CHE SF 2022	[Signature]
12	316	CCAWMCH026	SAHJAS.S	MSC CHE SF 2022	[Signature]
13	317	CCAWMCH027	SREELAKSHMI K.P	MSC CHE SF 2022	[Signature]
14	318	CCAWMCH028	SUMAYYA M.S	MSC CHE SF 2022	[Signature]
15					
16					

ATTENDANCE SHEET
NAME OF THE EVENT: REVIEW PRESENTATION
DATE: 11/10/2022

Sl NO	Name of student	Register number	Signature
1	JAYATHARSHAL DAS	CCAXMCH017	[Signature]
2	ANAGHA SUNIL	CCAXMCH018	[Signature]
3	ANGELINA WILSON	CCAXMCH019	[Signature]
4	ANVIN P STANLY	CCAXMCH020	[Signature]
5	AUGUSTINE JOYSON K	CCAXMCH021	[Signature]
6	DEENA ELIZABETH D	CCAXMCH022	[Signature]
7	ODURI REJUKUMAR	CCAXMCH023	[Signature]
8	HANNA K	CCAXMCH024	[Signature]
9	JESINA WARISON	CCAXMCH025	[Signature]
10	SHAHANAZ FATIHA S M	CCAXMCH026	[Signature]
11	SNEHA ANIL KUMAR	CCAXMCH027	[Signature]
12	SREELAKSHMI P. B	CCAXMCH028	[Signature]
13	SREERAG BHANI	CCAXMCH029	[Signature]



[Handwritten Signature]

PRINCIPAL

Fr. Dr. Jolly Andrews
Associate Professor -
In-Charge of Principal
Christ College (Autonomous)
Irinjalakuda