

Board of studies (36th)
Time: 10.00 am

Venue: Instrumentation room

Date: 09-02-2019

Board Members:

External Experts:

1. Dr. Ananda Ratchagan,
Associate Professor, Department of Chemistry,
Islamiah College, Newton, Vaniyambadi.
2. Dr. A. Vijayakumar
Assistant Professor,
Loyola College,
Chennai.

Not present

Not present

Alumnus:

3. Dr. S. Joseph Selvaraj
Associate Professor,
Department of Chemistry,
St. Joseph's College (Autonomous), Tiruchirappalli

Not present

University Nominee:

4. Dr. A. Pandurangan,
Professor,
Department of Chemistry,
Anna University, Guindy Campus,
Chennai.

Student Representatives:

5. Ms. I. Rebeccah Ruby (17PCH11)
6. Mr. N. Athisiva Selvam (16CHE45)

I. Rebeccah Ruby.

Department members:

7. Dr. V. Jeyabal
8. Dr. S. Stanly John Xavier
9. Dr. S. Mary Jelastin Kala
10. Dr. C. Maria Magdalane
11. Dr. Y. Jeya Vinse Ruban
12. Dr. M. Baby Mariyatra
13. Dr. C. Christopher
14. Dr. A. Anto Arockiaraj
15. Mr. U. Jeyapaul
16. Mr. A. Jerold Antony
17. Dr. G. Vignesh

09-02-2019

Time: 10:00 a.m

Venue: Instrumentation Room

Minutes of Board of Studies (36th)

Date
Page 95

The meeting started with a prayer song by Dr. A. Anto Anochia Ray, Bible reading by Dr. C. Christopher and prayer by Dr. M. Baby Marysathra. Dr. Y. Teja Vinise Ruban welcomed the board. Dr. S. Stanley John Xavier read the minutes of the previous Board of Studies.

The Board discussed the students' feedback on curricular aspects conducted by IQAC in Nov. 2018. The responses of the students showed that the syllabus meets all the needs of the present scenario. The Board appreciated the contents of the syllabus.

The board appreciated the allied syllabus and suggested a little modification (if needed) to carry out in the next syllabus revision. The board suggested to introduce more elective subjects and to conduct parallel classes for elective papers giving opportunity to the students to make their own choice. Such papers are solid state chemistry and material science (in sem IV), Biomolecules and Medicinal chemistry (in sem V) and Analytical Techniques and Industrial Chemistry (in sem VI). The board also suggested to have practical components in the elective papers. Computer Applications can be taught in the place of pharmaceutical chemistry for two hours in semester II. Water analysis has to be included in the analytical chemistry practical in sem VI. Board suggested to include laboratory safety measures in any one of the papers.

The Board suggested the conversion of everyday chemistry (SBES) paper into a practical one and also to have Thermodynamics as SBE in IV semester.

The Board suggested introducing more elective papers for M.Sc programme which would increase the employability of the students. The suggested elective papers are Chemistry of nanomaterials, solar cell applications and industrial catalysis.

Shruti

10th Dec 2019 09/10/19
M.S. Sathakumar, HOD Chem

Board of studies (37th)

venue: Staff room (Cham)

Time: 10.00 am

08-02-2020

1. Dr. A. Vijayakumar (External)
Asst. Professor of Chemistry
Loyola College, Chennai-34.
94401-46214. Not present

2. Dr. Ananda Ratchagan (External) - Not present
Associate Professor of Chemistry
Islamiah College (Autonomous),
Newtown, Vanigambadi-635 752
94423-15578.

3. Dr. S. Joseph Sevaraj, (Alumni) - Not present
Associate Professor,
St Joseph's College (Autonomous),
Trichy. 94425-79828.

4. Dr. A. Poudurangan, (U. Nomini) - Not present.
Asst. Professor of Chemistry,
Anna University, Guindy.
99416-27396.

5. Dr. V. Jeyabal

6. Dr. S. Stanley John Xavier

7. Dr. S. Mary Thelastin Kala

8. Dr. C. Maria Magdalena

9. Dr. Y. Jeya Vinase Ruban

10. Dr. M. Baby Mariyatra

11. Dr. C. Christopher

12. Dr. A. Anto Arackiaraj

13. Mr. U. Jeyapaul

14. Mr. A. Terold Antony

15. Dr. D. Jeyakumar

16. Geoffrey Bellson Daniel D. 17CHE12

17. Esakki Muthu. E 18PCH09

8. Daniel

P. Esakki Muthu.

Minutes of Board of Studies (37th)

08-02-2020

Time: 10.00 a.m.

Venue: Chemistry staff room.

The meeting started with a silent Prayer.

The Board was welcomed and minutes of previous Board of studies was presented by Dr. M. S. Selvakumar.

The board discussed P.G. syllabus and P.G. course pattern, the following suggestion came out

- Introduction of statistical tools in the research methodology paper.
- Introduction of uncommon organic reagents-reaction and mechanism in organic chemistry paper.
- Inclusion of determination of configuration in Polymer chemistry unit.

The board assigned the following staff members of PG Shift II to revise the syllabus with fore said changes.

Dr. D. Jeyakumar - organic chemistry

Dr. A. Anto Arockia Raj - Inorganic chemistry.

Dr. A. Terold Antony - Physical chemistry.

Dr. U. Jeyapaul - Elective paper.

The UG syllabus was discussed. The board suggested to increase the class duration of Inorganic Qualitative analysis from 2 hour to 3 hours in III and IV semesters. The board also suggested to convert the two SBE papers in III and IV semesters into practical oriented papers. The following staff members will revise the UG syllabus.

Dr. C. C. Dr. V. J. Dr. M. J. K. - organic chemistry

Dr. M. M. Dr. S. S. - Inorganic chemistry

Dr. Y. J. Dr. M. S. S. - Physical chemistry

Dr. M. S. S. - NME : Allied - Dr. M. B. M.

The Board also suggested to have Industrial internship for UG and P.G students.

The Board suggested the following, as subject experts and alumnus for the next board of studies.

Mr. Antony Martin - Orchid Pharm. (Alumnus)
 Dr. Abraham John - Gandhi Gram University
 Dr. G. Gnanakumar - Madurai Kamaraj University
 Dr. Augustin Anil Prasad - SG Vaishnava College
 Dr. Ramesh - Kalasalingam University
 Dr. E. Subramani - Head, Phar. Chem. M.S. University.

In the syllabus book printed in 2018, SBE5 and SBE6 in III and IV semesters were found interchanged. A letter was given to Fr. Principal and controller of examinations on 20.06.2019 to have SBE5-18USB32 Material science in III semester, and SBE6-18USB41 Everyday chemistry in IV semester. The letter was presented before the board for ratification.

LOWENSTEIN 08/02/20

Dr. M.S. Selvakumar.

HOD, Chemistry.

Dr. M.S. SELVAKUMAR

M.Sc. M.Phil. Ph.D.

Asst. Prof. & Head

Department of Chemistry

St. Xavier's College (Autonomous)

Palayamkottai - 627002

Board of studies (38th)

Date : 06/02/2021

Time : 10.00 am

venue : M-32

1. Dr. G. Gnana Kumar (External Expert)
Head, Dept. of Physical Chemistry
Madurai Kamaraj University
95857-52997

G. Gnana Kumar

2. Dr. E. Subramanian (External Expert)
Head, Dept. of Pharmaceutical Chemistry
Manonmaniam Sundaranar University
99651-78458

- ABSENT

3. Dr. P. Rameshkumar (Alumnus)
Assistant Professor, Kalasalingam University
Srivilliputhur - 626128
8012923515

P. Ramesh

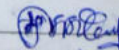
4. Mr. J. Antony Raj (Industry person)
Technical Manager, m/s Agaram Paints (P) Limited
NO: 4C/142, Karunanithinagar, Thiruchendur road.
Tuticorin - 628008 77080-64035

- ABSENT

5. Dr. V. Jayabal
6. Dr. M. S. Selvakumar
7. Dr. S. Stanley John Xavier
8. Dr. S. Mary Jelestin Kala
9. Dr. C. Maria Magdalane
10. Dr. M. Baby Mariyathra
11. Dr. C. Christopher
12. Dr. A. Anto Arockiaraj
13. Mr. V. Jayapaul
14. Mr. A. Jerald Antony
15. Dr. D. Jayakumar
16. Dr. R. Ganesa Moorthi

17 Ms. P. Muthu Shobana 19PCH09

18 Ms. S. A. Helstina Jisha 18CH626


 S.A. Helstina Jisha
 06/02/2021

Minutes of Board of Studies (38th)

Venue: M-32

Time: 10.00 am

06-2-2021

The meeting started at 10.00 am on 06/02/2021 in the chemistry department class room M-32 with a prayer by Dr. A. Anto Arackiaraj. Dr. D. Jeyakumar welcomed the board. Dr. Y. Jaya Vinse Ruban read the minutes of the previous board of studies.

The board discussed the PG syllabus and suggested the following points.

- * The practical course pattern can be redesigned in such a way that each semester carries one practical paper.
- * Mapping of syllabus with Bloom's taxonomy can be done.
- * A brief presentation of syllabus is needed for physical chemistry papers.
- * Introduction of separate question patterns and assignments for fast learners.
- * Increase the credit for the project work.
- * The syllabus of the fourth semester can be minimized, so that students can concentrate more on project work.
- * The course outcomes for all the topics to be checked.
- * The programme ^{specific} outcomes can be modified by taking into account of employment, research and higher studies.

The board appreciated the content of the PG syllabus with a few corrections in physical chemistry.

The U.G. syllabus was discussed. The board gave the approval to convert the SBB papers Material science in the III semester and Everyday Chemistry in the IV semester into practical oriented papers. The board suggested to restructure all the five units of the elective paper in the V semester. Water quality parameters such as TDS, COD and BOD have to be included in

agricultural chemistry paper. Unique properties of nano materials can be incorporated in the Unit IV of Inorganic chemistry III. Board asked to give the expansion of all the abbreviations present throughout the syllabus. The board appreciated the UoB syllabus for its course content and having self study portion in all the units. Dr. M.S. Selvakumar proposed the vote of thanks and the meeting came to an end at 1.40 pm.

Y. Jayashrinivasan 6/2/21

Dr. Y. Jaya Vinay Rangan
Head, Dept. of Chemistry

Board of studies (39th)
Date: 23/04/2022 Time: 10.00 am

Venue: m-32

1. Dr. J. Annaraj (University Nominee)
Head, Dept. of Material Science, School of Chemistry,
Madurai Kamaraj University, Madurai. - ABSENT.
2. Dr. G. Gnana Kumar (Subj. Expert)
Head, Associate Professor of Chemistry
School of Chemistry, MKU, Madurai
G. Gnana Kumar
23/4/22
3. Dr. E. Subramanian (Subj. Expert)
Head, Dept of Pharmaceutical Chemistry,
M.S. University, Tirunelveli
99651-78458
ABSENT
4. Dr. Ramesh Kumar (Alumnus)
Assistant Professor of Chemistry
Kalasalingam University, Sivilliputhur
80129-23515
ABSENT
5. Mr. J. Antony Raj (Industry)
Technical Manager, m/s Agaram Paints Ltd,
4C/142, Karunariththirajar
Tiruchendur Road, Tuticorin.
ABSENT
6. Dr. V. Jeyabal
7. Dr. M.S. Selvakumar
8. Dr. S. Stanley John Xavier
9. Dr. S. Mary Jelestin Kala
10. Dr. C. Maria Magdalene
11. Dr. M. Baby Maniyathra
12. Dr. C. Christopher
13. Dr. A. Anto Brockiaraj
14. Dr. V. Jeyapaul
15. Mr. A. Terold Antony
16. Dr. D. Jayakumar.

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17 Dr. R. Ganesa Moorthi

P. K. V.

18 M. Madasamy 20PC4519

M. Madasamy

19

Minutes of Board of Studies (39th)

Date: 23/04/2022

Time: 10.00 am

Venue: Room No M.32

The meeting started with the prayer by Dr. A. Anto Arockia Raj. The Board was welcomed by Dr. M.S. Selvakumar and minutes of the previous board of studies was presented by Dr. Y. Jaya Vinse Ruban.

The board discussed the PG syllabus and the following suggestions came out.

- In Inorganic chemistry II (Code 21PGCH22) paper, STYX number has to be included in unit IV.
- In Physical chemistry I (code 21PGCH13) paper, aim, meaning of ensembles, polyatomic molecules and population inversion have to be removed from Unit V.

The UG syllabus was discussed.

- In Food chemistry (21UNM11) Immediate, Cytotoxic, Immune-complex mediated and delayed hypersensitivity reactions have to be included in Unit II.
- The professional English paper (21USB22) was completely restructured with the following unit wise contents.

UNIT - I - Communication

Listening – Listening to recorded talks / lectures by specialists on subject specific topics - and answering comprehension exercises (inferential questions).

Speaking - Small group discussions on operational techniques of few industrial processes (the discussions could be based on the listening and reading passages) - open ended questions.

Reading - Two subject-based reading texts followed by comprehension activities / exercises.

Writing - Summary writing based on the reading passages. Grammar and vocabulary exercises / tasks to be designed based on the discourse patterns of the listening and reading texts in the book.

UNIT - II – Description

Listening - Listening to a Chemical product development – Drawing a flow chart.

Speaking - Facts– Just - A Minute Activities.

Reading - reading texts on advertisements (on products relevant to the subject areas) and answering inferential questions.

Writing - Dialogue writing - writing an argumentative / persuasive essay.

UNIT - III – Negotiation Strategies

Listening - Listening to interviews (subject related).

Speaking - Interviews with subject specialists (using video conferencing skills) – Narrating stories on given subject topics.

Reading - Selected sample of Web Page (subject area).

Writing - Comparative study on different groups of periodic table-Development of modern periodic table.

Reading Comprehension - Essay on Pro and Cons of industrial world. The essay will address all aspects and impacts of industrialization in environmental and commercial sectors.

UNIT – IV – Presentation skills

Listening to short (2 to 5 minutes) academic videos (prepared by EMRC / other MOOC videos on Indian academic sites).

Speaking - Making oral presentations through chalk and board/Power point (subject based).

Reading - Essay on Creativity and Imagination (subject based).

Writing – Basic writings related to accidental discoveries in science. Poster making – writing slogans /captions (subject based).

UNIT – V – Critical Thinking Skills

Listening : Listening to the talks Nobel laureates (subject based)

Speaking – Portraying scientists (any scientists)

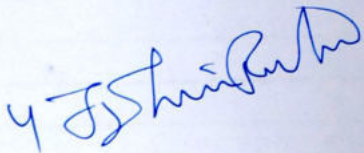
Reading- Product Profiles, Circulars, Review articles.

Writing – Problem and Solution essay (one or two specific issues) -Creative writing- summary writing.

Board recommended having only internal mode of evaluation for the professional English paper.

- Board agreed to make MoU with Dr. G. Gnanakumar, Head In-charge, Department of Physical Chemistry, Madurai Kamaraj University, for sharing research and laboratory facilities available in the department.
- Board also suggested to sign MoU with UCST university of Malaysia for student-teacher exchange programme.
- Board recommended to take steps to sign MoU with the SFR college for women (Autonomous), Sivakasi for computational studies.
- Board also recommended to have internships with Prof. B. Karthikeyan, Dept. of Chemistry, Annamalai University for instrumentation facilities.

Dr. C. Christopher thanked the board members and the meeting came to an end at 1.15 pm.



Department of Chemistry

ST. Xavier's College (Autonomous), Palayamkottai.

Minutes of the Board of Studies (43rd)

The Board of Studies Meeting of the Department of Chemistry was held on 23.02.2024 in the department (M-32) at 10.00 am. The meeting started with a prayer by Dr. A. Anto Arockia Raj followed by the welcome address by Dr. M.S. Selvakumar.

Agenda of the meeting

1. Minutes of the previous Board of studies meeting.
2. Finalizing the detailed syllabus for both UG and PG.
3. Any other matter.

Members present

1. **Dr. B. Karthikeyan (Subject Expert)**
Associate Professor, and Dy. Director in DRD
Department of Chemistry
Annamalai University, Annamalai Nager-608002
2. **Dr. M. Kannan (Alumnus)**
Assistant Professor, Department of Chemistry,
Thiruvalluvar College,
Papanasam, Vickramasingapuram-627425.
3. Dr. V. Jeyabal, Associate Professor, Department of Chemistry, SXC-627002.
4. Dr. M. S. Selvakumar, Assistant Professor, Department of Chemistry, SXC-627002.
5. Dr. S. Stanly John Xavier, Assistant Prof., Department of Chemistry, SXC-627002.
6. Dr. S. Mary Jelastin Kala, Assistant Prof., Department of Chemistry, SXC-627002.
7. Dr. C. Maria Magdalane, Assistant Prof., Department of Chemistry, SXC-627002.
8. Dr. M. Baby Mariyatra, Assistant Prof., Department of Chemistry, SXC-627002.
9. Dr. C. Christopher, Assistant Prof., Department of Chemistry, SXC-627002.
10. Dr. A. Anto Arockia Raj, Assistant Prof., Department of Chemistry, SXC-627002.
11. Dr. U Jeyapaul, Assistant Prof., Department of Chemistry, SXC-627002.
12. Dr. A. Jerold Antony, Assistant Prof., Department of Chemistry, SXC-627002.
13. Dr. D. Jayakumar, Assistant Prof., Department of Chemistry, SXC-627002.
14. Dr. R. Ganesamoorthi, Assistant Prof., Department of Chemistry, SXC-627002.
15. Miss. J. S. Akshayaa (23PCH505) I M.Sc., Chemistry SXC –Student representative.

The following members could not attend the meeting due to various reasons.

1. Dr. S. Murugesan (University Nominee)

Professor, Department of Inorganic Chemistry, M.K. University, Madurai- 625 021

2. Dr. P. Suresh (Subject expert-I)

Assistant Professor, Dept. of Natural Products Chemistry,
School of Chemistry, M.K. University, Madurai- 625 021

3. Dr. Alagarsamy Pandikumar (Industrial Expert)

Senior Scientist, CSIR-CECRI
Karaikudi- 630 003.

Dr. Y. Jaya Vinse Ruban, HoD read the minutes of the previous board of studies meeting and got the approval.

Based on the discussion on the UG course pattern, the following suggestions were made by the board.


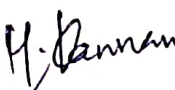
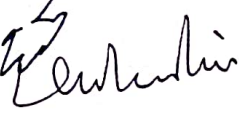





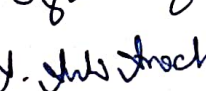





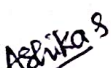
- Project and Viva Voce can be incorporated in the final semester by reducing the hours from other major papers.
- Theoretical, computational work and green reactions with green solvents can be given for project work.
- In Inorganic chemistry-I of semester III include the charge values in all the ions.
- Add sulphate instead of sulphide in semester III major practical paper.
- Include the latest edition reference books in all units.
- In material science paper interchange Unit- II and Unit- III and rename unit- I as Introduction to Materials.
- Carry out microscale techniques in qualitative analysis.
- Include factors affecting chemical shift in the Unit IV of Organic chemistry III.
- From "Thermodynamics and solid state" paper remove fullerene, clay, Zeolites and its applications and add Plane and line defects.
- In allied chemistry II (for Physics) change the title of Unit-I as Fundamentals of organic chemistry, include M.O diagram of N_2 in unit-II and Remove soap and cleansing action from unit- V. In the same paper remove metallurgy from unit-II.
- The Board recommended to follow Bloom's taxonomy in Question setting.

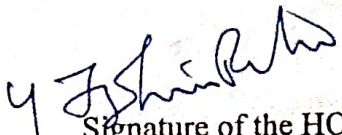
Based on the discussion on the PG course pattern, the following suggestions were made by the board.

- In "organic synthesis and photochemistry" paper include retrosynthesis in stereochemistry and remove synthesis of stereochemistry controlled products in Unit-I. Include the reference book "Organic Synthesis -The disconnection approach" by Stuart Warren, Wiley Student Edition.

- In Quantum chemistry and group theory paper add "Hybridization of methane" and remove molecular vibration in unit-V
- In Physical Chemistry Practical-I include Mixture of halides in potentiometric titrations.
- In Coordination chemistry-II include M.O approach to bonding in "Ferrocene" and remove "metallocene".
- In electrochemistry paper replace the title of the Unit-I by theory of electrolytes and Interchange Unit-II and Unit-III.
- In Physical chemistry practical-II unit I include I_2 in CCl_4 and water instead of benzene and water and in Unit-II replace binary system as simple systems.

Dr. C. Christopher thanked the board members and the meeting came to an end at 12.50 pm.

1. Dr. B. Karthikeyan 
2. Dr. M. Kannan 
3. Dr. V. Jeyabal 
4. Dr. M. S. Selvakumar 
5. Dr. S. Stanly John Xavier 
6. Dr. S. Mary Jelastin Kala 
7. Dr. C. Maria Magdalane 
8. Dr. M. Baby Mariyatra 
9. Dr. C. Christopher 
10. Dr. A. Anto Arockia Raj 
11. Dr. U Jeyapaul 
12. Dr. A. Jerold Antony 
13. Dr. D. Jayakumar 
14. Dr. R. Ganesamoorthi 
15. Miss. S. ASHIKA (23PCH508) 


Signature of the HOD

Dr. Y. JAYA VINSE RUBAN, Ph.D.
Head, Assistant Professor
Department of Chemistry
St. Xavier's College (Autonomous)
Palayamkottai - 627002

Department of Chemistry**ST. Xavier's College (Autonomous), Palayamkottai.****Minutes of the Board of Studies (44th)**

The Board of Studies Meeting of the Department of Chemistry was held on 01.02.2025 in the department (M-32) at 10.00 am. The meeting started with a prayer by Dr.C. Christopher followed by the welcome address by Dr. A. Anto Arockia Raj.

Agenda of the meeting

1. Minutes of the previous Board of studies meeting.
2. Marking Skill based and Indian Knowledge system based content in the curriculum
3. Identifying equivalent NPTEL/SWAYAM courses for the existing courses.
4. Any other matter

Members present**1. Dr. B. Karthikeyan (Subject Expert)**

Associate Professor, and Dy. Director in DRD
Department of Chemistry
Annamalai University, Annamalai Nager-608002

2. Dr. M. Kannan (Alumnus)

Assistant Professor, Department of Chemistry,
Thiruvalluvar College,
Papanasam, Vickramasingapuram-627425.

3. Dr. V. Jeyabal, Associate Professor, Department of Chemistry, SXC-627002.
4. Dr. M. S. Selvakumar, Assistant Professor, Department of Chemistry, SXC-627002.
5. Dr. S. Stanly John Xavier, Assistant Prof., Department of Chemistry, SXC-627002.
6. Dr. S. Mary Jelastin Kala, Assistant Prof., Department of Chemistry, SXC-627002.
7. Dr. C. Maria Magdalane, Assistant Prof., Department of Chemistry, SXC-627002.
8. Dr. M. Baby Mariyatra, Assistant Prof., Department of Chemistry, SXC-627002.
9. Dr. C. Christopher, Assistant Prof., Department of Chemistry, SXC-627002.
10. Dr. A. Anto Arockia Raj, Assistant Prof., Department of Chemistry, SXC-627002.
11. Dr. U Jeyapaul, Assistant Prof., Department of Chemistry, SXC-627002.
12. Dr. A. Jerold Antony, Assistant Prof., Department of Chemistry, SXC-627002.
13. Dr. D. Jayakumar, Assistant Prof., Department of Chemistry, SXC-627002.
14. Dr. R. Ganesamoorthi, Assistant Prof., Department of Chemistry, SXC-627002.

The following members could not attend the meeting due to various reasons.

1. **Dr. S. Murugesan (University Nominee)**
Professor, Department of Inorganic Chemistry, M.K. University, Madurai- 625 021
2. **Dr. P. Suresh (Subject expert-I)**
Assistant Professor, Dept. of Natural Products Chemistry,
School of Chemistry, M.K. University, Madurai- 625 021
3. **Dr. Alagarsamy Pandikumar (Industrial Expert)**
Senior Scientist, CSIR-CECRI
Karaikudi- 630 003.

Dr. Y. Jaya Vinse Ruban, HoD read the minutes of the previous board of studies meeting and got the approval.

Based on the discussion on the UG curriculums following contents are identified marked for skill enhancement and IKS.

All the 19 courses coming under practical and SEC are skill oriented courses.

General Chemistry I

Skill : Building atomic models to represent protons, neutrons, and electrons to manipulate and visualize the structure of atoms and chemical bonds.

Interactive periodic table of elements.

Chem3D (Avogadro, PyMOL, Chimera & ChimeraX) to create 3D models of molecules and the overlap of atomic orbitals.

Understand the nature of conductors and insulators through practical experiment utilizing everyday objects.

IKS : Indian Alchemy and periodic properties

Five Elements correlation with matter and hybridization

Organic Chemistry I

Skill: Making molecular models

Conformational studies of molecules

Specific rotation of molecules

IKS: Copper Vessels for various treatments

Neem and Copper extract

Organic Chemistry II

Skill: Preservatives, Artificial sweeteners

IKS: Alcohols and Ayurvedic Medicine.

Organic Chemistry III

Skill: Knowledge exposure to fertilizers

Interpretation of Molecular spectrum

IKS: Bioluminescence in fire flies

Organoleptic evolution

Organic chemistry IV

Skill: Exposure to Rubber industries.

Interpretation of and connecting various spectral data

IKS: Proto-glass (faience)

Neel (Indigo Dye)

Inorganic Chemistry I

Skill: Working principle and infrastructure of Koodamkulam Nuclear power station

Differences between Koodamkulam and Kalpakam power stations

Analytical techniques

Model making of Xenon Compounds

Identifying the sources of calcium carbonate

IKS: Elements in natural plant materials

Inorganic Chemistry II

Skill: Knowledge exposure on extraction of transition metals

Separation techniques of lanthanides

Gravimetric precipitation experiments for the determination of Sulfate, Barium, Lead, Calcium, Nickel and Copper

IKS: Extraction of metals Fe, Cu and Zn (Zawar Mines)

Au, Ag and mercury compounds in ayurveda

Ash content analysis in ayurveda (Triphala was burned to determine its mineral residue)

Inorganic Chemistry III**Skill:** Calculation of CFSE**IKS:** Metals in Siddha Medicine**Physical Chemistry I****Skill:** Pressure-Volume studies

Demonstration of Tyndall effect

Making of Emulsion

IKS: Sooranam preparation in siddha medicine

Indian method of bleaching

Native Zeolite applications

Physical Chemistry II**Skill:** Differentiation of weak and salt electrolytes using conductance**IKS:** Tamarind-salt mixture for UTI treatment

Thetran seed for Purification of water

Raman Effect.

Physical Chemistry III**Skill :** Polarization studies

Construction of Leclanche Cell

Material Science**Skill:** Measurement of resistance

Preparation of nanoparticles.

Guay balance experiments

Solar cells

IKS: Different forms of ores**Thermodynamics and Solid State****Skill:** Comparison of heat capacities of solids

Crystallization

IKS: Various salts and their crystalline form in Indian medicine.

Board suggested "Programming in Modern C++" from NPTEL/SWAYAM to substitute "Computers in chemistry" paper.

Based on the discussion on the PG course pattern, the following suggestions were made by the board.

All the 07 courses coming under practical, Internship, mini project, Project and SEC are skill oriented courses.

Organic Reaction Mechanism-I

SKILL: Making models for cis-trans Decalins

IKS: Ancient Indian Alchemical Lab (Rasashala)

Structure and Bonding in Inorganic compounds

SKILL:: Making models for boranes, polymeric sulphur nitride and polynitrilic chlorides

IKS: History of Diffraction studies by Aryabhata

Nano and Supramolecular Chemistry

SKILL : Making models for Fullerenes

IKS: Synthesis and characterization of metal powders (parpadam)

Molecular Spectroscopy

SKILL: Interpretation of given compounds using spectral datas

IKS: History of Raman Effect

Organic Reaction Mechanism-II

SKILL:: Conversion of Benzil to Benzilic acid

IKS: Ancient Indian Alchemical Lab (Rasashala)

Calcium absorption by *Cissus Quadrangularis* (pirandai)

Inorganic chemistry Practical-II

IKS: Preparation of various types of Rasam (Tomato, lemon, tamarind, pepper)

pH analysis of food products.

Bio Inorganic Chemistry

SKILL: Animation of Sodium-potassium pump, Eversion

IKS: Nitrogen Fixation by Legume Plants

Medicinal Chemistry

SKILL: Preparation of paracetamol and Aspirin

IKS: Medicinal role of *Vitex negundo* (Notchi)

Kitchen remedies for common diseases

Chemistry in consumer Products

SKILL:: Visit to Soap, fireworks, matches and dairy Industry

Organic synthesis and Photochemistry

Interchange of Paterno Buchi reaction from Unit-IV to Unit-V
Removal of photon energy transfer reaction

SKILL: cis trans isomerisation- formation of Vitamin D in sunlight

Photoreduction of benzophenone to benzpinacol

IKS: Various reactions involved in Ancient Indian Alchemical Lab.

Coordination Chemistry-II

SKILL: Prepare some metal complexes and study their Tanabe-Sugano diagram

prepare some metal complexes and study their molar conductance. Models for
ferrocene and Half sandwich compounds, piano-stool molecules

IKS: History of colours in paints

Quantum Chemistry and Group Theory

SKILL : Add hybridization of acetylene in Unit-V

Removal of calculation and delocalization energy of 1,3-butdiene and benzene

IKS: Study of electrons and atoms from Ancient Tamil Literature from Thirumoolar
Thirumandhiram

Thermodynamics and chemical Kinetics

SKILL : Numerical calculation on Partition Function

IKS: Kinetic techniques involved in metallurgy medicine preparation in ancient Indian
Literature.

Influence in thermodynamics by five Elements (panchaboodham)

Electrochemistry

SKILL: Construction of electrochemical cell (Daniel Cell)


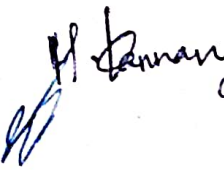

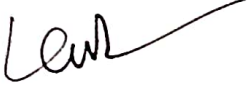
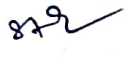




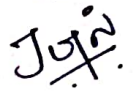
IKS: Ancient Indian Iron making Process

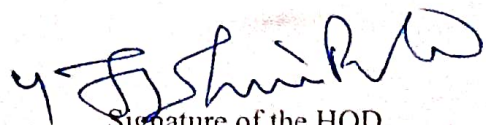
Mini Project

Give some experiments to do using Journal of Chemical Education.

New Scheme of Valuation for all Practical papers has been approved.

Dr. M. Baby Mariyatra thanked the board members and the meeting came to an end at 12.45 pm.

1. Dr. B. Karthikeyan  11/2/25
2. Dr. M. Kannan  01.02.2025
3. Dr. V. Jeyabal 
4. Dr. M. S. Selvakumar 
5. Dr. S. Stanly John Xavier 
6. Dr. S. Mary Jelastin Kala 
7. Dr. C. Maria Magdalane 
8. Dr. M. Baby Mariyatra 
9. Dr. C. Christopher
10. Dr. A. Anto Arockia Raj 
11. Dr. U Jeyapaul 
12. Dr. A. Jerold Antony
13. Dr. D. Jayakumar
14. Dr. R. Ganesamoorthi


Signature of the HOD
Dr. Y. JAYA VINSE RUBAN, Ph.D.
Head, Assistant Professor
Department of Chemistry
St. Xavier's College (Autonomous)
Palayamkottai - 627002