



DEPARTMENT OF CHEMISTRY
HOLY CROSS COLLEGE (Autonomous), NAGERCOIL.
 (Affiliated to Manonmaniam Sundaranar University, Tirunelveli.
 Nationally Re-Accredited with A* grade by NAAC (CGPA 3.35))
 Kanyakumari District, Tamil Nadu, India.



Board of studies meeting on 30.11.2021 at 10.00 am

Members

Dr. G. Leema Rose	-	HoD and Chair person
Dr. K. Swarnalatha	-	University nominee, Manonmaniam Sundaranar University, Tirunelveli
Dr. C. Mary Anbarasi	-	Subject Expert, Jeyaraj Annapakiam College, Periyakulam
Dr. C. Sathananthan	-	Subject Expert, Government Arts College, Udhakamandalam, The Nilgiris
Ms. M. Monisha	-	Alumni
Mr. T. Dinesh Selvan	-	Industrialist, Kanam Latex Industries Pvt. Ltd, Kavalkinaru
Dr. M. Anitha Malbi	-	Member
Dr. R. Gladis Latha	-	Member
Sr. K. Francy	-	Member
Dr. S. Ajith Sinthuja	-	Member
Ms. L. Deva Vijila	-	Member
Dr. Sheeba Daniel	-	Member
Dr. Y. Christabel Shaji	-	Member
Dr. S. Lizy Roselet	-	Member
Dr. M. Shirly Treasa	-	Member
Ms. B.T. Delma	-	Member

Agenda

1. Prayer
2. Welcome by the chair person
3. Reading of the minutes of the previous meeting and approval
4. Approval of Syllabus for V and VI Semesters with reference / recommended books for UG Programme
5. Classification of New courses
6. Classification of the courses as Employability/ Entrepreneurship/ Skill development (UG)
7. Classification of the courses as local/ national/ regional / global relevance and cross cutting issues (UG)
8. Conduct of seminars/ workshops in collaboration with Govt. agencies/ Universities/ NGOs
9. Suggestions for innovative teaching and evaluation techniques for UG
10. New measures to be undertaken by the department
11. Next meeting of BoS
12. Any other

**Minutes of the Board of Studies meeting of the Department of Chemistry
held on 30.11.2021 at 10.00 am**

The board of studies meeting commenced with invoking God's blessings by Dr. Gladis Latha. The members of the board, the Chairperson, Subject experts, Industrialist, Alumna and the faculty of the department were present for the meeting.

Chairperson's Address

The chairperson and the Head of the Department, Dr. G. Leema Rose, welcomed the members and introduced them while briefing the agenda. The following items in the agenda were discussed by the members of the board.

Item 01/BoS21.11/03: Approval of the minutes of the meeting held on 02.02.2021

Dr. M. AnithaMalbi read the minutes of the previous meeting which was approved by the board members.

Item 02/BoS 21.11/04: Restructuring/Revision of curriculum for B.Sc. Chemistry

The overall structure of the curriculum framed for 2020-2023 was accepted by the board.

Course Structure
Distribution of Hours and Credits

Course	Sem. I	Sem. II	Sem. III	Sem. IV	Sem. V	Sem. VI	Total	
							Hours	Credits
Part I - Language	6 (4)	6 (4)	6 (4)	6 (4)	-	-	24	16
Part II - English	6 (4)	6 (4)	6 (4)	6 (4)	-	-	24	16
Part - III								
Major Core - Theory	4 (4)	4 (4)	4 (4)	4 (4)	5+5+6 (5+5+6)	6+5+5 (6+5+5)	48	48
Major Core - Practical	2	2 (2)	2	2 (2)	3+3+2	3+3+2 (3+3+2)	24	12
Elective/Project	-	-	4 (3)	4 (3)	4 (3)	4 (3)	16	12
Allied -Theory	4 (3)	4 (3)	4 (3)	4 (3)	-	-	16	12
Allied Practical	2	2 (2)	2	2 (2)	-	-	8	4
Part - IV								
Add on Course (Professional English)	2(2)	2(2)	2 (2)	2 (2)	-	-	8	8
SEC (Skill Enhancement Course)	2 (2)	2 (2)	-	-	-	2 (2)	6	6
AEC (Ability Enhancement Course)	-	-	-	-	2(2)	-	2	2
Non-Major Elective	2 (2)	2 (2)	-	-	-	-	4	4
Total	30(21)	30(25)	30(20)	30(24)	30(21)	30(29)	180	140
Non Academic Courses								
Part -V								
*FC -I (Values for Life)	-	(1)	-	-	-	-	-	1
*FC- II(Personality Development)	-	-	-	(1)	-	-	-	1
*FC-III (Human Rights Education)	-	-	-	-	(1)	-	-	1
*FC -IV (Gender Equity Studies)	-	-	-	-	-	(1)	-	1
*SLP-Community Engagement Course	-	-	(2)	-	-	-	-	2
*SLP-Extension activity (RUN)	-	-	-	(1)	-	-	-	2
*STP - Clubs & Committees / NSS	-	-	-	(1)	-	-	-	2

* Mandatory Courses conducted outside the regular working hours.

Total number of Hours = 180

Total number of Compulsory Credits = 140+10

Courses offered for the students of B.Sc Chemistry (2020-2023)

Semester	Course	Course code	Title of the course	Hours /week	Credits
I	Part I	TL2011/ FL2011	Language	6	4
	Part II	GE2011	General English	6	4
	Part III	CC2011	Major Core I : General Chemistry - I	4	4
		CC20P1	Major Practical I : Volumetric Analysis and Inorganic Preparation	2	-
		CA2011	Allied I Theory: Chemistry for Life Sciences	4	3
		CA20P1	Allied I Practical :Volumetric and Organic Analysis	2	-
	Part IV	APS201	Add on course I : Professional English for physical sciences	2	2
		CNM201	Non Major Elective (NME) :Applied Chemistry - I	2	2
		SEC201/ SEC202	Meditation and Exercise/ Computer Literacy	2	2
	Part V	FCV201	Foundation course I : Values for Life	-	-
STP201		STP - Clubs & Committees / NSS	-	-	
II	Part I	TL2021/ FL2021	Language	6	4
	Part II	GE2021	General English	6	4
	Part III	CC2021	Major Core II : General Chemistry - II	4	4
		CC20P1	Major Practical I : Volumetric Analysis and Inorganic Preparation	2	2
		CA2021	Allied I Theory: Chemistry of Biomolecules	4	3
		CA20P1	Allied I Practical : Volumetric and Organic Analysis	2	2
	Part IV	APS202	Add on course II : Professional English for physical sciences	2	2
		CNM202	Non Major Elective (NME) :Applied Chemistry - II	2	2
		SEC201/ SEC202	Meditation and Exercise / Computer Literacy	2	2
	Part V	FCV201	Foundation course I : Values for Life	-	1
		SLP201	Service Learning Programme (SLP) : Community Engagement Course	-	2
		STP201	STP : Clubs & Committees / NSS	-	-
	Part I	TL2031/ FL2031	Language	6	4
Part II		GE2031	General English	6	4
Part III		CC2031	Major Core III : General Chemistry - III	4	4
		CC2032	Major Elective : I a. Pharmaceutical Chemistry	4	3
		CC2033	Major Elective : I b. Nano and Polymer Chemistry		

III		CC2034	Major Elective : I c. Applied Electro Chemistry		
		CC20P2	Major Practical II : Semi micro inorganic mixture analysis	2	-
		CA2031	Allied II Theory: Inorganic and Physical Chemistry	4	3
		CA20P1	Allied II Practical : Volumetric and Organic Analysis	2	-
	Part IV	APS203	Add on Course III : Professional English for physical sciences	2	2
	Part V	FCV202	Foundation course II :Personality Development	-	-
		SLP202	Service Learning Programme (SLP) : Extension activity (RUN)	-	-
		STP201	STP - Clubs & Committees / NSS	-	-
IV	Part I	TL2041/ FL2041	Language	6	4
	Part II	GE204	General English	6	4
	Part III	CC2041	Major Core IV : General Chemistry - IV	4	4
		CC2042	Major Elective : II a. Green Chemistry	4	3
		CC2043	Major Elective : II b. Forensic Chemistry		
		CC2044	Major Elective : II c. Instrumental Methods of Analysis		
		CC20P2	Major Practical II : Semi micro inorganic mixture analysis	2	2
		CA2041	Allied II Theory: Physical Chemistry	4	3
		CA20P1	Allied II Practical : Volumetric and Organic substance Analysis	2	2
	Part IV	APS204	Add on course IV : Professional English for physical sciences	2	2
	Part V	FCV202	Foundation course II : Personality Development	-	1
		SLP202	Service Learning Programme (SLP) : Extension activity (RUN)	-	2
		STP201	STP : Clubs & Committees / NSS	-	2
V	Part III	CC2051	Major Core V : Organic Chemistry - I	5	5
		CC2052	Major Core VI : Inorganic Chemistry - I	5	5
		CC2053	Major Core VII : Physical Chemistry - I	6	6
		CC2054	Major Elective : III a Bio Chemistry	4	3
		CC2055	Major Elective : III b Dairy Chemistry		
		CC2056	Major Elective : III c Analytical Chemistry		
		CC20P3	Major Practical III : Gravimetric estimation and Organic preparation	3	-
		CC20P4	Major Practical IV: Organic estimation ,organic analysis and determination of physical constants	3	-
		CC20P5	Major Practical V : Physical Chemistry Experiments	2	-
	Part IV	AEC201	Ability Enhancement Course (AEC) : Environmental	2	2

			studies		
	Part V	FCV203	Foundation course III : Human Rights Education	-	1
VI	Part III	CC2061	Major Core VIII : Organic Chemistry - II	6	6
		CC2062	Major Core IX : Inorganic Chemistry -II	5	5
		CC2063	Major Core X : Physical Chemistry - II	5	5
		CC20PR	Major Core : Project	4	3
		CC20P3	Major Practical III : Gravimetric estimation and Organic preparation	3	3
		CC20P4	Major Practical IV : Organic estimation ,organic analysis and determination of physical constants	3	3
		CC20P5	Major Practical V : Physical chemistry experiments	2	2
	Part IV	SEC203	Chemistry for competitive examinations	2	2
Part V	FCV204	Foundation course IV :Gender equity studies	-	1	
			TOTAL	180	150

Non Academic Courses

Part V

Semester	Course code	Course	Credits
I & II	FCV201	*FC -I (Values for Life)	1
III	SLP201	*SLP-Community Engagement Course	2
III & IV	FCV202	*FC- II(Personality Development)	1
IV	SLP202	*SLP-Extension activity (RUN)	2
IV	STP201	*STP - Clubs & Committees / NSS	2
V	FCV203	*FC-III (Human Rights Education)	1
VI	FCV204	*FC -IV (Gender Equity Studies)	1
		Total	10

Self Learning Course – Extra Credit Courses

Semester	Course code	Title of the paper	Credits
III/V	CC20S1	Soil Science and Agricultural Chemistry	2
IV/ VI	CC20S2	Chemistry of Cosmetics	2
III - VI		Online Course	2

Value Added Courses

S. No.	Course code	Name of the course	Hours
I	VAC201	Food Science	30
II	VAC202	Chemistry of Cosmetics	30
III	VAC203	Clinical Chemistry	30
IV	VAC204	Dairy Chemistry	30

Item 03/BoS21.11/05: Approval of Syllabi of B.Sc. Chemistry for V and VI Semesters with the following suggestions/ recommendations

The BoS members approved the courses in V and VI semesters for UG programme.

- For the V and VI semesters the TANSCHÉ syllabi for the core courses Organic chemistry I&II, Inorganic chemistry I&II Physical chemistry I&II will be followed with few modifications as recommended by the board members.
- The elective course Green chemistry in V semester is replaced by Bio chemistry.
- The practical Gravimetric estimation and Inorganic complex preparation is modified as Gravimetric estimation and Organic preparation.
- The practical Organic estimation and Inorganic semi-micro analysis is modified as Organic estimation, Organic analysis and Determination of physical constants.
- New courses introduced for B.Sc. Chemistry in V and VI semesters are:

Semester	Course Code	Course
V	CC2051	Major core V: Organic chemistry I
	CC2052	Major core VI : Inorganic chemistry I
	CC2053	Major core VII : Physical chemistry I
	CC2054	Major Elective III a) : Bio chemistry
	CC2055	Major Elective III b) : Dairy chemistry
	CC2056	Major Elective III c): Analytical chemistry
VI	CC2061	Major core VIII: Organic chemistry II
	CC2062	Major core IX : Inorganic chemistry II
	CC2063	Major core X : Physical chemistry II
	SEC203	Chemistry of Competitive Examinations

- Recommended books for B.Sc. Chemistry

The BoS members recommended few more books based on the modified/revised syllabi for B.Sc. Chemistry

1. Cotton and Wilkinson, 2014. Advanced Inorganic Chemistry. Willey student edition,
2. Huheey.E.,Keiter.A., Keiter.L., 1993. Inorganic Chemistry. Haper Collins College Publishers.
3. C.N. Banwell and E.M. Mccash, 1995. Fundamentals of Molecular Spectroscopy. DataMcGraa-Hillpublishers, Fourth Edition.
4. Y.R.Sharma, 2013. Organic Spectroscopy S.Chand &CO Company, Fifth Edition.
5. K.V.Raman Organic Spectroscopy

Item 04/BoS21.11/06: Classification of the courses as Employability/ Entrepreneurship/ Skill development

Semester	Course Code	Name of the Course	Employability	Entrepreneurship	Skill development
V	CC2051	Major core V:Organic chemistry I	✓		
	CC2052	Major core VI : Inorganic chemistry I	✓		
	CC2053	Major core VII : Physical chemistry I	✓		
	CC2054	Major – Elective III : Bio chemistry	✓		
VI	CC2061	Major core VIII: Organic chemistry II	✓		
	CC2062	Major core IX : Inorganic chemistry II	✓		
	CC2063	Major core X : Physical chemistry II	✓		
	CC20P3	Major Practical III : Gravimetric estimation and Organic preparation			✓
	CC20P6	Major Practical IV: Organic Estimation, Organic analysis and determination of physical constants			✓
	CC20P7	Major Practical V: Physical Chemistry Experiments			✓

Item 05/BoS 21.11/07: Classification of the courses as local / national/ regional /global relevance and cross cutting issues

The members of the board classified the UG courses in the new structure based on local/regional/ national/ global relevance and cross cutting issues.

Semester	Course Code	Name of the Course	Local	National	Regional	Global
V	CC2051	Major core V: Organic chemistry - I				✓
	CC2052	Major core VI : Inorganic chemistry _ I				✓
	CC2053	Major core VII : Physical chemistry - I				✓

VI	CC2054	Major – Elective III : Bio chemistry				✓
	CC2061	Major core VIII: Organic chemistry - II				✓
	CC2062	Major core IX : Inorganic chemistry -II				✓
	CC2063	Major core X : Physical chemistry - II				✓
	CC2051	Major core V: Organic chemistry - I				✓
	CC20PR	Major core : Project	✓			
	CC20P3	Major Practical III – Gravimetric estimation and Organic preparation				✓
	CC20P6	Major Practical IV Organic Estimation, Organic analysis and determination of physical constants				✓
CC20P7	Major Practical V - Physical Chemistry Experiments				✓	

Semester	Course Code	Name of the Course	Gender Equity	Environment and sustainability	Human values	Professional ethics
V	CC2051	Major core V: Organic chemistry I				
	CC2052	Major core VI : Inorganic chemistry I				
	CC2053	Major core VII : Physical chemistry I				
	CC2054	Major – Elective III : Bio chemistry				
VI	CC2061	Major core VIII: Organic chemistry II				
	CC2062	Major core IX : Inorganic chemistry II				
	CC2063	Major core X : Physical chemistry II				
	CC20P3	Major Practical III : Gravimetric estimation and Organic preparation		✓		
	CC20P6	Major Practical IV: Organic Estimation, Organic analysis and determination of physical constants		✓		
	CC20P7	Major Practical V: Physical Chemistry Experiments		✓		

Item 06/BoS 21.11/08: Suggestions on conducting seminars/ workshops in collaboration with Universities/ Industries/ NGO/ other organizations

Workshops and seminars by faculty from MSU/MKU/ NIIST/CUSAT etc were suggested.

Workshops and seminars in collaboration with the parent University is recommended

Item 07/BoS 21.11/09: Suggestions for innovative teaching and evaluation techniques

The BoS members suggested the following methodologies to enhance teaching, learning and evaluation.

- i. Use of the participative learning techniques such as Flipped Class room, Group discussion, problem solving, case study etc
- ii. New mode of evaluation which relies on the creativity rather than memorizing, group activities, a rich campus experience etc. has to be incorporated.

Item 08/BoS 21.11/10: Discussion on coordination of teaching, research, extension and other activities of the department

- Organise webinars/seminars in collaboration with the IIC of the college.
- Two Startups have been initiated.
- Professional English to enhance communication skill has been initiated.

Item 09/BoS 21.11/11: Next Meeting of the BoS

The members of the board suggested to have the next meeting of BoS in the first week of December 2022.

The meeting came to an end at 12.45 pm with the vote of thanks by the Chairperson of the BoS.

Item 10/BoS 21.11/12: Any Other

Nil

Student Feedback

UG

- Curriculum focuses to gain wide knowledge on organic, inorganic, physical and other branches of chemistry.
- Practical classes improve our skills in handling chemicals, glasswares and analyze samples.
- Self learning courses enhance our thirst to learn subjects apart from chemistry.

Name of the Members	Designation	Signature
Dr. G. Leema Rose	HoD & Chair Person	<i>Leema R.</i>
Dr. K. Swamalatha	Associate Professor (University Nominee) Manonmaniam Sundaranar University Thirunelveli - 2	
Dr. C. Mary Anbarasi	Associate Professor (Subject Expert) Jayaraj Anna Packiam College for Women (Autonomous) Periyakulam	
Dr. C. Sathananthan	Assistant Professor (Subject Expert) Government Arts College, Udhagamandalam, The Nilgris.	
Ms. M. Monisha	Alumini	<i>M. Monisha</i>
Mr. T. Dinesh Selvan	Industrialist, Kanam Latex Industries Pvt. Ltd, Kavalkinaru	<i>Dinesh Selvan</i>
Dr. M. Anitha Malbi	Assistant Professor	<i>Anitha Malbi</i>
Dr. R. Gladis Latha	Assistant Professor	<i>R. Gladis Latha</i>
Sr. K. Francy	Assistant Professor	<i>Francy</i>
Dr. S. Ajith Sinthuja	Assistant Professor	<i>Ajith Sinthuja</i>
Ms. L. DevaVijila	Assistant Professor	<i>DevaVijila</i>
Dr. Sheeba Daniel	Assistant Professor	<i>Sheeba Daniel</i>
Dr. Y. Christabel Shaji	Assistant Professor	<i>Christabel Shaji</i>
Dr. S. Lizy Roselet	Assistant Professor	<i>Lizy Roselet</i>
Dr. M. Shirley Treasa	Assistant Professor	<i>Shirley Treasa</i>
Ms. B.T. Delma	Assistant Professor	<i>Delma</i>

Attendance Certificate

From

Dr.C.MaryAnbarasi
Associate Professor of Chemistry
Jayaraj Anna Packiam College for Women(Autonomous)
Periyakulam.

To

The Dean
Holy Cross College(Autonomous)
Nagercoil -4

Dear Madam

This is to certify that myself Dr. C. Mary Anbarasi, attended the Board of studies meeting conducted by the Department of Chemistry, Holy Cross College (Autonomous), Nagercoil via Google meet as Subject Expert on 30.11.2021

Sincerely



C. Mary Anbarasi