यशवंतराव चव्हाण महाराष्ट्र मुक्त विद्यापीठ, नाशिक
नॅक मानांकित 'अ' श्रेणी
ज्ञानगंगोत्री, गंगापूर धरणाजवळ, गोवर्धन
नाशिक – ४२२ २२२ (महाराष्ट्र) भारत
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विज्ञान विद्याशाखा / School of Sciences

4Y B.Sc. (Honours) (Major in Chemistry) (2025 Pattern) Programme

Minutes of the PAC Meeting held on 06.06.2024

Date: 06th June, 2024 Time: 10.30 am to 04.30 pm

The PAC Meeting for 4Y B.Sc. (Honours) (Major in Chemistry) (2025 Pattern) Programme as per NEP 2020 of **School of Sciences** was held offline & online on **Thursday, 06-06-2024 at 10:30 AM** at school meeting hall. Following members and invitees were present,

01	Dr. Chetana Kamlaskar	(Chairperson) and Member
02	Prof. Ashok V Borhade	Member
03	Prof. Chetan B. Patil	Member
04	Prof. Ramesh L. Gardas	Member
05	Dr. Dnyaneshwar Bhusanur	Academic Coordinator (Chemistry Programme) and Invitee
06	Dr. Bharat More	Invitee
07	Dr. Jagruti Chavan	Invitee
08	Ms. Tejaswi Kadam	Invitee
09	Ms. Minakshi Kadel	Invitee
10	Mr. Nandkishor Sangale	Invitee
11	Mr. Ravindra Bharsat	Invitee

Following members could not attend the meeting due to their other engagements.

01	Dr. Sunanda More	Member

Dr. Chetana Kamlaskar, Chairperson and Member of the PAC first welcomed PAC members and introduced the members about the purpose of the meeting. During the meeting following items were discussed.

SN	Details of Items	Resolution
1	Agenda 1: To finalize and approve proposed credit distribution details, detailed Syllabus for all second and third year courses, evaluation pattern	The PAC members unanimously finalized and approved the proposed programme structure, credit distribution and detail syllabus for all second and third year courses at semester 03 to 06 and

<table>
<tr>
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<td>and other details for all courses of B.Sc. Chemistry (Honours) (Major and Minor) programmes {2025 Pattern} as per NEP2020 guidelines.</td>
<td>evaluation pattern for all first, second and third year courses at semester 01 to 06 of B.Sc. Chemistry (Honours) (Major and Minor) programmes for the following 04 programmes as per NEP2020 guidelines, with few suggestions about courses in programme structure:
i. 4 Year B.Sc. (Honours) (Major in Chemistry and Minor in Mathematics)
ii. 4 Year B.Sc. (Honours) (Major in Chemistry and Minor in Physics)
iii. 4 Year B.Sc. (Honours) (Major in Chemistry and Minor in Zoology)
iv. 4 Year B.Sc. (Honours) (Major in Chemistry and Minor in Botany)
Suggestions by PAC members:
1. As per dissuasion in the PAC meeting, it has been advised to revise lab activities of all courses from Semester 01 to semester 06 of proposed Major in Chemistry programme.
2. For Semester 03, course CHE202: Molecular Modeling Chemistry (T) course content to be updated in consultation with Dr. Chetan B. Patil. Accordingly, suggested updates have been incorporated in the syllabus.
3. As per discussion in the meeting PAC member Dr. Chetan Patil suggested to interchange two courses CHE204 (DSC) and CHE306 (DSE) of semester 04 & semester 05. But as per suggestion of another PAC member Dr. Ramesh L. Gardas suggested ‘no change’ of course position, hence, both courses kept as it is in the proposed programme structure.
4. In semester 05, CHE301: Physical and Inorganic Chemistry, it has been advised that in credit 02, rearrange the units sequence. Suggested correction mentioned below:
<table>
<tr><th>As per Programme Structure</th><th>As per Suggestion</th></tr>
<tr><td>02-01: Solids</td><td>02-01: Chemical Kinetics I</td></tr>
<tr><td>02-02: Chemical Kinetics I</td><td>02-02: Chemical Kinetics II</td></tr>
<tr><td>02-03: Chemical Kinetics II</td><td>02-03: Theories of Reaction Rates</td></tr>
<tr><td>02-04: Theories of Reaction Rates</td><td>02-04: Solids</td></tr>
</table>
5. It is also suggested that course content of Major courses shall be used for providing Chemistry as minor for other programmes.</td>
</tr>
</table>

	Action Taken: Programme structure and syllabus has been updated as per the discussion in PAC meeting. Refer Appendix I & II for updated programme structure & syllabus.	
2	**Agenda 2:** Finalization and approval of Syllabus, recommendation of additional Elective courses (DSE), OE/VSC courses etc. related to Chemistry {2025 Pattern} as per NEP 2020 guidelines.	The PAC members unanimously finalized and approved the syllabus of the proposed Major in Chemistry; Elective courses (DSE) related to Chemistry, have been discussed and approved after fruitful deliberations among all PAC members.
	Action Taken: Syllabus of DSE courses has been updated as per the discussion in PAC meeting. Refer **Appendix II** for updated syllabus.	
3	**Agenda 3:** Framing guidelines for OJT/FP and RP Courses	The PAC members agreed to guide time to time regarding the OJT/FP and RP courses. A booklet of OJT/FP will be proposed by School of Sciences for all UG courses, which will be finalized in due course of time. It was also resolved to authorize the Director of this School to enrich and update the OJT, Field Project (FP), and Research Project (RP) guidelines from time to time as per the University Policy decisions/norms.
4	**Agenda 4:** Identification of Writers/ Editors for SLM development task	The PAC members unanimously gave their consent for the writing/editing of the Self Learning Material (SLM) for the proposed B.Sc. (Honours) (Major in Chemistry) programme. For a few courses, the PAC members have given their consent for SLM development. They also agreed to recommend experts for the new courses, in due course of time. It was also resolved to authorize the Director of this School to enrich and update the list of writers/editors for the Self Learning Material (SLM) development task from time to time as per the University Policy decisions/norms.

Meeting ends with vote of thanks by **Dr. Jagruti Chavan.**

Thanks…

Dr. Chetana Kamlaskar)
Chairperson, PAC B.Sc. (Honours)
(Major in Chemistry)

APPENDIX I: PROGRAMME STRUCTURE:
CHEMISTRY: MAJOR, ELECTIVES, MINOR, OE, VSC, SEC, IKS COURSES
{2025 PATTERN}

Abbreviations: Yr.: Year; Sem.: Semester; Cumulative Credits: Cum. Cr. ; T- Theory Course; P- Practical course; TW-Term Work; PW- Project Work

Level	Sem	Major						Minor		OE		VSC, SEC (VSEC)		AEC, VEC, IKS		OJT, FP, CEP, CC, RP		Cum. Cr. / Sem
		Mandatory		Electives														
4.5	I	**CHE101:** Basic Inorganic & Organic Chemistry **(T)**	4	-				-		(CHE) OE-I	2		2		2		2	22
		CHE102: Lab Activities on CHE101 **(P)**	2							(CHE) OE-II	2		2	**IKS101:** Ancient Indian Chemistry **(T)**	2			
	II	**CHE103:** Physical & Organic Chemistry-I **(T)**	4	-				**CHE103**: Physical & Organic Chemistry-I **(T)**	2	(CHE) OE-III	2	**VSC102:** Lab Activities on CHE103 **(P)**	2		2		2	22
		CHE104: Lab Activities on CHE103 **(P)**	2							(CHE) OE-IV	2		2		2			
Cum. Cr.		**12**		**00**				**02**		**08**		**08**		**10**		**04**		**44**
5.0	III	**CHE201:** Physical & Organic Chemistry-II **(T)**	4					**CHE201:** Physical & Organic Chemistry-II **(T)**	4	(CHE) OE-V	2	**VSC201:** Lab Activities on CHE201 **(P)**	2		2	Field Project	2	22
		CHE202: Molecular Modelling Chemistry **(T)**	2														2	
		CHE203: Lab Activities on CHE201 **(P)**	2															
	IV	**CHE 204:** Basic Analytical Chemistry **(T)**	4					**CHE204:**Basic Analytical Chemistry **(T)**	4	IPR **(T)**	2		2		2		2	22
		CHE 205: Nuclear Chemistry **(T)**	2														2	
		CHE206: Lab Activities on CHE204 **(P)**	2															
Cum. Cr.		**28**		**00**				**10**		**12**		**12**		**14**		**12**		**88**

Level	Sem	Major				Minor		OE		VSC, SEC (VSEC)		AEC, VEC, IKS		OJT, FP, CEP, CC, RP		Cum. Cr. / Sem
		Mandatory		Electives												
5.5	V	**CHE301:** Physical & Inorganic Chemistry **(T)**	4	**CHE304:** Chemistry in Everyday life **(T) OR** **CHE305:** Biochemistry **(T) OR** **CHE306:** Co-ordination Chemistry**(T)**	4	**CHE301:**Physical & Inorganic Chemistry **(T)**	4	-	-	**VSC207:** Lab Activities on CHE301 **(P)**	2	-	-	**FP/CEP**	2	22
		CHE302: Industrial Chemistry-I **(T)**	2													
		CHE303: Lab Activities on CHE301 & CHE302 **(P)**	4													
	VI	**CHE307:** Green Chemistry **(T)**	4	**CHE310:** Advanced Agrochemicals, Bio-pesticides & Fertilizers **(T) OR** **CHE311:** Forensic Chemistry **(T) OR** **CHE312:** Application of Computer in Chemistry**(T)**	4	**CHE306:** Green Chemistry **(T)**	4	-	-	-		-	-	**OJT**	4	22
		CHE308: Industrial Chemistry-II **(T)**	2													
		CHE 309: Lab Activities on CHE307 & CHE308 **(P)**	4													
Cum. Cr.		**48**		**08**		**18**		**12**		**14**		**14**		**18**		**132**

Level	Sem	Major				Minor		OE		VSC, SEC (VSEC)		AEC, VEC, IKS		OJT, FP, CEP, CC, RP		Cum. Cr. / Sem
		Mandatory		Electives												
6.0	VII	**CHE401:** Inorganic Chemistry-I **(T)**	4	**CHE406:** Physical Methods in Chemistry **(T) OR** **CHE407:** Polymer Chemistry **(T)**	4	**RES405:** Research Methodology **(T)**	4	-		-		-		-	2	22
		CHE402: Physical Chemistry-I **(T)**	4													
		CHE403: Organic Chemistry-I **(T)**	2													
		CHE404: Lab Activities on CHE401, CHE402 & CHE403 **(P)**	4													
	VIII	**CHE409:** Inorganic Chemistry-II **(T)**	4	**CHE415:** Basic Analytical Chemistry **(T) OR** **CHE416:** Chemical Mathematics &Biostatistics **(T)**	4	-								**CHE413:** OJT	4	22
		CHE410: Physical Chemistry-II **(T)**	4													
		CHE411: Organic Chemistry-II **(T)**	2													
		CHE412: Lab Activities onCHE409, CHE410 & CHE411 **(P)**	4													
Cum. Cr.		**76**		**16**		**22**		**12**		**14**		**14**		**22**		**176**

Programme Structure: B.Sc. (Honours) (Major in CHEMISTRY and Minor in Mathematics) (2025 Pattern)

Level	Sem	Major				Minor		OE		VSC, SEC (VSEC)		AEC, VEC, IKS		OJT, FP, CEP, CC, RP		Cum. Cr. / Sem
		Mandatory		Electives												
4.5	I	**CHE101:** Basic Inorganic & Organic Chemistry **(T)**	4	-		-		OE	2	**VSC101:** Basic Instrumentation Skills **(TW)**	2	**AEC101:** English Communication-1 **(T)**	2	**CC101:** Yoga **(TW)**	2	22
		CHE102: Lab Activities on CHE101 **(P)**	2					OE	2	**SEC101:** IT & e-Learning Skills **(TW)**	2	**VEC101:** Value Education **(T)**	2			
												IKS101: Ancient Indian Chemistry **(T)**	2			
	II	**CHE103:** Physical & Organic Chemistry-I **(T)**	4	-		**MAT101:** Fundamentals of Mathematics **(T)**	2	OE	2	**VSC102:** Mathematical Statistics using MS - Excel **(P)**	2	**AEC102:** English Communication-2 **(T)**	2	**CC102:** Drawing & Sketching **(TW)**	2	22
		CHE104: Lab Activities on CHE103 **(P)**	2					OE	2	**SEC102:** Solar Panel System **(TW)**	2	**VEC102:** Environmental Science **(T)**	2			
Cum. Cr.		**12**		**00**		**02**		**08**		**08**		**10**		**04**		**08**
Exit option: Award of UG Certificate in CHEMISTRY as Major with 44 credits and an additional 4 credits core NSQF course/ Internship OR Continue with Major and Minor																
5.0	III	**CHE201:** Physical & Organic Chemistry-II **(T)**	4	-		**MAT103**: Calculus **(T)**	4	OE	2	**VSC201:** Practical Based on MAT 103 **(P)**	2	**AEC201:** Modern Indian Language – 1 **(T)**	2	**Field Project**	2	22
		CHE202: Molecular Modelling Chemistry **(T)**	2											**CC201:** Conference & Event Management **(TW)**	2	
		CHE203: Lab Activities on CHE201 **(P)**	2													
	IV	**CHE 204:** Basic Analytical Chemistry **(T)**	4	-		**MAT201:** Linear Algebra**(T)**	4	**Code: IPR(T)**	2	**SEC201:** Financial & Investment Skills **(TW)**	2	**AEC202:** Modern Indian Language – 2**(T)**	2	**CEP**	2	22
		CHE 205: Nuclear Chemistry **(T)**	2											**C202:** Personality & Career Skills **(TW)**	2	
		CHE206: Lab Activities on CHE204 **(P)**	2													
Cum. Cr.		**28**		**00**		**10**		**12**		**12**		**14**		**12**		**88**
Exit option: Award of UG Diploma in CHEMISTRY as Major and MATHEMATICS as Minor with 88 credits and an additional 4 credits core NSQF course/ Internship OR Continue with Major and Minor																

Level	Sem	Major				Minor		OE		VSC, SEC (VSEC)		AEC, VEC, IKS		OJT, FP, CEP, CC, RP		Cum. Cr. / Sem
		Mandatory		Electives												
5.5	V	**CHE301:** Physical &Inorganic Chemistry (T)	4	**CHE304:** Chemistry in Everyday life (T) OR **CHE305:** Biochemistry (T) OR **CHE306:** Co-ordination Chemistry (T)	4	**MAT301:**Differential Equations **(T)**	**4**	-	-	**VSC301: MAT303:** Programming in MATLAB **(P)**	**2**	-	-	FP/CEP	**2**	**22**
		CHE302: Industrial Chemistry-I (T)	2													
		CHE303: Lab Activities on CHE301 & CHE302 **(P)**	**4**													
	VI	**CHE307:** Green Chemistry (T)	4	**CHE310:** Advanced Agrochemicals, Bio-pesticides & Fertilizers (T) OR **CHE311:** Forensic Chemistry (T) OR **CHE312:** Application of Computer in Chemistry (T)	4	**MATXXX:** Numerical Analysis **(T)**	**4**	-	-	-		-	-	OJT	**4**	**22**
		CHE308: Industrial Chemistry-II (T)	2													
		CHE 309: Lab Activities on CHE307 & CHE308 **(P)**	4													
Cum. Cr.		**48**		**08**		**18**		**12**		**14**		**14**		**18**		**132**
Exit option: Award of UG Degree in CHEMISTRY as Major with 132 credits OR Continue with Major and Minor																

Level	Sem	Major				Minor		OE		VSC, SEC (VSEC)		AEC, VEC, IKS		OJT, FP, CEP, CC, RP		Cum. Cr. / Sem
		Mandatory		Electives												
6.0	VII	**CHE401:** Inorganic Chemistry-I **(T)**	**4**	**CHE406:** Physical Methods in Chemistry **(T)** **OR** **CHE407:** Polymer Chemistry **(T)**	**4**	**RES405:** Research Methodology **(T)**	**4**	-		-		-		-	**2**	**22**
		CHE402: Physical Chemistry-I **(T)**	**4**													
		CHE403: Organic Chemistry-I **(T)**	**2**													
		CHE404: Lab ActivitiesonCHE401, CHE402 & CHE403 **(P)**	**4**													
	VIII	**CHE409:** Inorganic Chemistry-II **(T)**	**4**	**CHE415:** Analytical Chemistry **(T)** **OR** **CHE416:** Chemical Mathematics & Biostatistics **(T)**	**4**	-								**CHE413:** OJT	**4**	**22**
		CHE410: Physical Chemistry-II **(T)**	**4**													
		CHE411: Organic Chemistry-II **(T)**	**2**													
		CHE412: Lab Activities on CHE409, CHE410 & CHE411 **(P)**	**4**													
Cum. Cr.		**76**		**16**		**22**		**12**		**14**		**14**		**22**		**176**
Four Year UG Honours Degree in Major and Minor with 176 credits																

Programme Structure: B.Sc. (Honours) (Major in CHEMISTRY and Minor in PHYSICS) (2025 Pattern)

Level	Sem	Major				Minor		OE		VSC, SEC (VSEC)		AEC, VEC, IKS		OJT, FP, CEP, CC, RP		Cum. Cr. / Sem
		Mandatory		Electives												
4.5	I	**CHE101:**Basic Inorganic & Organic Chemistry **(T)**	4	-		-		**OE**	2	**VSC101:** Basic Instrumentation Skills **(TW)**	2	**AEC101:** English Communication-1 **(T)**	2	**CC101:** Yoga **(TW)**	2	22
		CHE102: Lab Activities on CHE101 **(P)**	2					**OE**	2	**SEC101:** IT & e-Learning skills **(TW)**	2	**VEC101:** Value Education **(T)**	2			
												IKS101: Ancient Indian Chemistry **(T)**	2			
	II	**CHE103:** Physical & Organic Chemistry-I **(T)**	4	-		**PHY103:** Electricity & Magnetism **(T)**	2	**OE**	2	**VSC102:** Electricity & Magnetism **(P)**	2	**AEC102:** English Communication-2 **(T)**	2	**CC102:** Drawing & Sketching **(TW)**	2	22
		CHE104: Lab Activities on CHE103 **(P)**	2					**OE**	2	**SEC102:** Solar Panel System **(TW)**	2	**VEC102:** Environmental Science **(T)**	2			
Cum. Cr.		**12**		**00**		**02**		**08**		**08**		**10**		**04**		**44**
Exit option: Award of UG Certificate in Major CHEMISTRY with 44 credits and an additional 4 credits core NSQF course/ Internship OR Continue with Major and Minor																
5.0	III	**CHE201:** Physical & Organic Chemistry-II **(T)**	4	-		**PHY301**: Thermodynamics & Statistical Mechanics **(T)**	4	**OE**	2	**VSC201:** Lab Activities on PHY201 **(P)**	2	**AEC201:** Modern Indian Language-1 **(T)**	2	**Field Project**	2	22
		CHE202: Molecular Modelling Chemistry **(T)**	2											**CC201:** Conference **&** Event Management **(TW)**	2	
		CHE203: Lab Activities on CHE201 **(P)**	2													
	IV	**CHE 204:** Basic Analytical Chemistry **(T)**	4	-		**PHY 304**: Optics **(T)**	4	**Code: IPR (T)**	2	**SEC201:** Financial & Investment Skills **(TW)**	2	**AEC202:** Modern Indian Language-2 **(T)**	2	**CEP**	2	22
		CHE 205: Nuclear Chemistry **(T)**	2											**CC202:** Personality & Career Skills **(TW)**	2	
		CHE206: Lab Activities on CHE204 **(P)**	2													
Cum. Cr.		**28**		**00**		**10**		**12**		**12**		**14**		**12**		**88**
Exit option: Award of UG Diploma in Major CHEMISTRY and Minor PHYSICS with 88 credits and an additional 4 credits core NSQF course/ Internship OR Continue with Major and Minor																

Level	Sem	Major				Minor		OE		VSC, SEC (VSEC)		AEC, VEC, IKS		OJT, FP, CEP, CC, RP		Cum. Cr. / Sem
		Mandatory		Electives												
5.5	V	**CHE301:** Physical & Inorganic Chemistry **(T)**	4	**CHE304:** Chemistry in Everyday life **(T) OR** **CHE305:** Biochemistry **(T)OR** **CHE306:** Co-ordination Chemistry **(T)**	4	**PHY301:** Classical & Quantum Mechanics**(T)**	4	-	-	**VSC207:** Lab Activities on PHY301**(P)**	2	-	-	FP/CEP	2	22
		CHE302: Industrial Chemistry-I **(T)**	2													
		CHE303: Lab Activities on CHE301 & CHE302 **(P)**	4													
	VI	**CHE307:** Green Chemistry **(T)**	4	**CHE310:** Advanced Agrochemicals, Bio-pesticides & Fertilizers **(T) OR** **CHE311:** Forensic Chemistry **(T) OR** **CHE312:** Application of Computer in Chemistry **(T)**	4	**PHY307:** Nuclear Physics & Radiation Safety **(T)**	4	-	-	-		-	-	OJT	4	22
		CHE308: Industrial Chemistry-II **(T)**	2													
		CHE 309: Lab Activities on CHE307 & CHE308 **(P)**	4													
Cum. Cr.		**48**		**08**		**18**		**12**		**14**		**14**		**18**		**132**
Exit option: Award of UG Degree in Major CHEMISTRY with 132 credits OR Continue with Major and Minor																

Level	Sem	Major				Minor		OE		VSC, SEC (VSEC)		AEC, VEC, IKS		OJT, FP, CEP, CC, RP		Cum. Cr. / Sem
		Mandatory		Electives												
6.0	VII	**CHE401:** Inorganic Chemistry-I **(T)**	4	**CHE406:** Physical Methods in Chemistry **(T)** **OR** **CHE407:** Polymer Chemistry **(T)**	4	**RES405:** Research Methodology **(T)**	4	-		-		-		-	2	22
		CHE402: Physical Chemistry-I **(T)**	4													
		CHE403: Organic Chemistry-I **(T)**	2													
		CHE404: Lab Activities on CHE401, CHE402 & CHE403 **(P)**	4													
	VIII	**CHE409:**Inorganic Chemistry-II **(T)**	4	**CHE415:**Analytical Chemistry **(T)** **OR** **CHE416:** Chemical Mathematics & Biostatistics **(T)**	4	-								**CHE413:** OJT	4	22
		CHE410: Physical Chemistry-II **(T)**	4													
		CHE411: Organic Chemistry-II **(T)**	2													
		CHE412: Lab Activities on CHE409, CHE410 & CHE411 **(P)**	4													
Cum. Cr.		**76**		**16**		**22**		**12**		**14**		**14**		**22**		**176**
Four Year UG Honours Degree in Major and Minor with 176 credits																

Programme Structure: B.Sc. (Honours) (Major in CHEMISTRY and Minor in ZOOLOGY) (2025 Pattern)

Level	Sem	Major				Minor		OE		VSC, SEC (VSEC)		AEC, VEC, IKS		OJT, FP, CEP, CC, RP		Cum. Cr. / Sem
		Mandatory		Electives												
4.5	I	**CHE101:** Basic Inorganic & Organic Chemistry **(T)**	4	-		-		OE	2	**VSC101:** Basic Instrumentation Skills **(TW)**	2	**AEC101:** English Communication-1 **(T)**	2	**CC101:** Yoga **(TW)**	2	22
		CHE102: Lab Activities on CHE101 **(P)**	2					OE	2	**SEC101:** IT & e-Learning Skills **(TW)**	2	**VEC101:** Value Education **(T)**	2			
												IKS101: Ancient Indian Chemistry **(T)**	2			
	II	**CHE103:** Physical & Organic Chemistry-I **(T)**	4	-		**ZOO106**: Comparative Anatomy & Developmental Biology of Vertebrates **(T)**	2	OE	2	**VSC102:** Lab Activity ZOO106 **(P)**	2	**AEC102:** English Communication -2 **(T)**	2	**CC102:** Drawing &Sketching **(TW)**	2	22
		CHE104: Lab Activities on CHE103 **(P)**	2					OE	2	**SEC102:** Solar Panel System **(TW)**	2	**VEC102:** Environmental Science **(T)**	2			
Cum. Cr.		**12**		**00**		**02**		**08**		**08**		**10**		**04**		**44**
Exit option: Award of UG Certificate in CHEMISTRY as Major with 44 credits and an additional 4 credits core NSQF course/ Internship OR Continue with Major and Minor																
5.0	III	**CHE201:** Physical & Organic Chemistry-II **(T)**	4	-		**ZOO201**: Animal Physiology & Ecology **(T)**	4	OE	2	**VSC201:** Lab Activity ZOO201 **(P)**	2	**AEC201:** Modern Indian Language - 1 **(T)**	2	**Field Project**	2	22
		CHE202: Molecular Modelling Chemistry **(T)**	2											**CC201:** Conference & Event Management **(TW)**	2	
		CHE203: Lab Activities on CHE201 **(P)**	2													
	IV	**CHE 204:** Basic Analytical Chemistry **(T)**	4	-		**ZOO206:** Genetics & Evolutionary Biology **(T)**	4	**Code: IPR(T)**	2	**SEC201:** Financial & Investment Skills **(TW)**	2	**AEC202:** Modern Indian Language - 2 **(T)**	2	**CEP**	2	22
		CHE205: Nuclear Chemistry **(T)**	2											**CC201:** Personality & Career Skills **(TW)**	2	
		CHE 206: Lab Activities on CHE204 **(P)**	2													
Cum. Cr.		**28**		**00**		**10**		**12**		**12**		**14**		**12**		**88**
Exit option: Award of UG Diploma in CHEMISTRY as Major and ZOOLOGY as Minor with 88 credits and an additional 4 credits core NSQF course/ Internship OR Continue with Major and Minor																

Level	Sem	Major				Minor		OE		VSC, SEC (VSEC)		AEC, VEC, IKS		OJT, FP, CEP, CC, RP		Cum. Cr. / Sem
		Mandatory		Electives												
5.5	V	**CHE301:** Physical & Inorganic Chemistry **(T)**	4	**CHE304:** Chemistry in Everyday life **(T) OR** **CHE305:** Biochemistry **(T) OR** **CHE306:** Co-ordination Chemistry **(T)**	4	**ZOO301:** Mammalian Histology **(T)**	4	-	-	**VSC207:** Lab Activity ZOO301**(P)**	2	-	-	FP/CEP	2	22
		CHE302: Industrial Chemistry-I **(T)**	2													
		CHE303: Lab Activities on CHE301 & CHE302 **(P)**	4													
	VI	**CHE307:** Green Chemistry **(T)**	4	**CHE310:** Advanced Agrochemicals, Bio- pesticides & Fertilizers **(T) OR** **CHE311:** Forensic Chemistry **(T) OR** **CHE312:** Application of computer in Chemistry **(T)**	4	**ZOO307:** Pest Management & Parasitology **(T)**	4	-	-	-		-	-	OJT	4	22
		CHE308: Industrial Chemistry-II **(T)**	2													
		CHE 309: Lab Activities on CHE307 & CHE308 **(P)**	4													
Cum. Cr.		**48**		**08**		**18**		**12**		**14**		**14**		**18**		**132**
Exit option: Award of UG Degree in CHEMISTRY as Major with 132 credits OR Continue with Major and Minor																

Level	Sem	Major				Minor		OE		VSC, SEC (VSEC)		AEC, VEC, IKS		OJT, FP, CEP, CC, RP		Cum. Cr. / Sem
		Mandatory		Electives												
6.0	VII	**CHE401:** Inorganic Chemistry-I **(T)**	4	**CHE406:** Physical Methods in Chemistry **(T)** **OR** **CHE407:** Polymer Chemistry **(T)**	4	**RES405:** Research Methodology **(T)**	4	-		-		-		-	2	22
		CHE402: Physical Chemistry-I **(T)**	4													
		CHE403: Organic Chemistry-I **(T)**	2													
		CHE404: Lab ActivitiesonCHE401, CHE402 & CHE403 **(P)**	4													
	VIII	**CHE409:** Inorganic Chemistry-II **(T)**	4	**CHE415:** Analytical Chemistry **(T)** **OR** **CHE416:** Chemical Mathematics & Biostatistics **(T)**	4	-								**CHE413:** OJT	4	22
		CHE410: Physical Chemistry-II **(T)**	4													
		CHE411: Organic Chemistry-II **(T)**	2													
		CHE412: Lab Activities on CHE409, CHE410 & CHE411 **(P)**	4													
Cum. Cr.		**76**		**16**		**22**		**12**		**14**		**14**		**22**		**176**
Four Year UG Honours Degree in Major CHEMISTRY and Minor ZOOLOGY with 176 credits																

Programme Structure: B.Sc. (Honours) (Major in CHEMISTRY and Minor in BOTANY) (2025 Pattern)

Level	Sem	Major				Minor		OE		VSC, SEC (VSEC)		AEC, VEC, IKS		OJT, FP, CEP, CC, RP		Cum. Cr. / Sem
		Mandatory		Electives												
4.5	I	**CHE101:** Basic Inorganic & Organic Chemistry **(T)**	4	-		-		OE	2	**VSC101:** Basic Instrumentation Skills **(TW)**	2	**AEC101:** English Communication-1 **(T)**	2	**CC101:** Yoga **(TW)**	2	22
		CHE102: Lab Activities on CHE101 **(P)**	2					OE	2	**SEC101:** IT & e-Learning Skills **(TW)**	2	**VEC101:** Value Education **(T)**	2			
												IKS101: Ancient Indian Chemistry **(T)**	2			
	II	**CHE103:** Physical & Organic Chemistry-I **(T)**	4	-		**BOT103**: Evolution and Diversity of Pteridophytes and Gymnosperms (T)	2	OE	2	**VSC102:** Lab Activity on BOT103 **(P)**	2	**AEC102:** English Communication-2 **(T)**	2	**CC102:** Drawing & Sketching **(TW)**	2	22
		CHE104: Lab Activities on CHE103 **(P)**	2					OE	2	**SEC102:** Solar Panel System **(TW)**	2	**VEC102:** Environmental Science **(T)**	2			
Cum. Cr.		**12**		**00**		**02**		**08**		**08**		**10**		**04**		**44**
Exit option: Award of UG Certificate in CHEMISTRY as Major with 44 credits and an additional 4 credits core NSQF course/ Internship OR Continue with Major and Minor																
5.0	III	**CHE201:** Physical & Organic Chemistry-II **(T)**	4	-		**BOT201**: Angiosperm Morphology, Taxonomy and Diversity (T)	4	OE	2	**VSC201:** Lab Activity on BOT201 **(P)**	2	**AEC201:** Modern Indian Language- 1 **(T)**	2	**Field Project**	2	22
		CHE202: Molecular Modelling Chemistry **(T)**	2											**CC201:** Conference & Event Management **(TW)**	2	
		CHE203: Lab Activities on CHE201 **(P)**	2													
	IV	**CHE 204:** Basic Analytical Chemistry **(T)**	4	-		**BOT206:** Plant Physiology and Metabolism (T)	4	**Code: IPR (T)**	2	**SEC201:** Financial & Investment Skills**(TW)**	2	**AEC202:** Modern Indian Language- 2 **(T)**	2	**CEP**	2	22
		CHE205: Nuclear Chemistry **(T)**	2											**CC202:** Personality & Career Skills **(TW)**	2	
		CHE 206: Lab Activities on CHE204 **(P)**	2													
Cum. Cr.		**28**		**00**		**10**		**12**		**12**		**14**		**12**		**88**
Exit option: Award of UG Diploma in CHEMISTRY as Major and BOTANY as Minor with 88 credits and an additional 4 credits core NSQF course/ Internship OR Continue with Major and Minor																

Level	Sem	Major				Minor		OE		VSC, SEC (VSEC)		AEC, VEC, IKS		OJT, FP, CEP, CC, RP		Cum. Cr. / Sem
		Mandatory		Electives												
5.5	V	**CHE301:** Physical & Inorganic Chemistry **(T)**	4	**CHE304:** Chemistry in Everyday life **(T) OR** **CHE305:** Biochemistry **(T) OR** **CHE306:** Co-ordination Chemistry **(T)**	4	**BOT301:** Cell Biology & Genetics **(T)**	4	-	-	**VSC207:** Lab Activity on BOT301 **(P)**	2	-	-	FP/CEP	2	22
		CHE302: Industrial Chemistry-I **(T)**	2													
		CHE303: Lab Activities on CHE301 & CHE302 **(P)**	4													
	VI	**CHE307:** Green Chemistry **(T)**	4	**CHE310:** Advanced Agrochemicals, Bio-pesticides & Fertilizers **(T) OR** **CHE311:** Forensic Chemistry **(T) OR** **CHE312:** Application of Computer in Chemistry **(T)**	4	**BOT307:** Analytical Techniques in Plant Science & Horticulture **(T)**	4	-	-	-		-	-	OJT	4	22
		CHE308: Industrial Chemistry-II **(T)**	2													
		CHE 309: Lab Activities on CHE307 & CHE308 **(P)**	4													
Cum. Cr.		**48**		**08**		**18**		**12**		**14**		**14**		**18**		**132**
Exit option: Award of UG Degree in CHEMISTRY as Major with 132 credits OR Continue with Major and Minor																

Level	Sem	Major				Minor		OE		VSC, SEC (VSEC)		AEC, VEC, IKS		OJT, FP, CEP, CC, RP		Cum. Cr. / Sem
		Mandatory		Electives												
6.0	VII	**CHE401:** Inorganic Chemistry-I **(T)**	4	**CHE406:** Physical Methods in Chemistry **(T)** **OR** **CHE407:** Polymer Chemistry **(T)**	4	**RES405:** Research Methodology **(T)**	4	-		-		-		-	2	22
		CHE402: Physical Chemistry-I **(T)**	4													
		CHE403: Organic Chemistry-I **(T)**	2													
		CHE404: Lab ActivitiesonCHE401, CHE402 & CHE403 **(P)**	4													
	VIII	**CHE409:** Inorganic Chemistry-II **(T)**	4	**CHE415:** Analytical Chemistry **(T)** **OR** **CHE416:** Chemical Mathematics &Biostatistics **(T)**	4	-								**CHE413:** OJT	4	22
		CHE410: Physical Chemistry-II **(T)**	4													
		CHE411: Organic Chemistry-II **(T)**	2													
		CHE412: Lab Activities onCHE409, CHE410 & CHE411 **(P)**	4													
Cum. Cr.		**76**		**16**		**22**		**12**		**14**		**14**		**22**		**176**
Four Year UG Honours Degree in Major and Minor with 176 credits																

APPENDIX II:

SYLLABUS OF B.SC. (HONOURS) (CHEMISTRY AS MAJOR)

Refer the syllabus file attached with this mail separately.

APPENDIX III: SYLLABUS OF B.SC. (HONOURS) (CHEMISTRY AS MINOR)

Refer the syllabus file attached with this mail separately