Koneru Lakshmaiah Education Foundation
(Category -1, Deemed to be University estd. u/s. 3 of the UGC Act, 1956)
Approved by AICTE ISO 21001:2018 Certified
Campus: Green Fields, Vaddeswaram - 522 302, Guntur District, Andhra Pradesh, INDIA.
Phone No. +91 8645 - 350 200; www.klef.ac.in; www.klef.edu.in; www.kluniversity.in
Admin Off: 29-36-38, Museum Road, Governorpet, Vijayawada - 520 002. Ph: +91 - 866 - 3500122, 2576129

To
The Dean -Academics
K L Deemed to be University
Vaddeswaram

Sub: Minutes of the 11th BOS meeting-Chemistry Department held on 10-08-2026 at F102 from 3:30 PM to 4:30 PM-Virtual Mode Reg.,

Dear Sir,

With respect to the subject to the cited above, planning to conduct the BOS meeting on **10-08-2026 at F102 from 3:30 PM to 4:30 PM -Virtual Mode.**

Microsoft Teams Link:

https://teams.microsoft.com/meet/435527757894590?p=pK4EsA6bmIuncbIi8w

Thanking You,

Yours sincerely

Dr. A. Venkateswara Rao
Chairman BOS – Chemistry

Dr. A. Venkateswara Rao
Head of the Department
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10-08-2026

DEPARTMENT OF CHEMISTRY
MINUTES OF 11th BOARD OF STUDIES MEETING

The department of chemistry conducted the 11th BOS meeting on 10-08-2026 in virtual mode (Microsoft Teams) Link:

https://teams.microsoft.com/meet/435527757894590?p=pK4EsA6bmIuncbIi8w

from 3:30 PM to 4:30 PM.

The following members were present:

1. Dr A Venkateswara Rao, HoD/ Chairperson, KLEF
2. Dr K R S Prasad, Dean-SA & Professor, KLEF
3. Dr J V Shanmukha Kumar, Professor, KLEF
4. Dr. Niranjan Patra, Associate Professor, KLEF
5. Dr. K. Deepti, Dy. HoD, PG Coordinator & Prof. In charge-Academics, KLEF
6. Dr. T. Anusha, Assistant Professor & RPAC, KLEF
7. Dr. Tinku Baidya, Assistant Professor, KLEF
8. Dr. Md. Shahid, Assistant Professor & OBE In charge, KLEF
9. Dr. R. Yadagiri, Assistant Professor & TLP In charge, KLEF
10. Dr. R. Sreenivasulu, Assistant Professor, KLEF
11. Dr. Sk. Bahadur, Assistant Professor, KLEF
12. Dr. Noimur Rahman, Assistant Professor, KLEF
13. Prof. Suresh Kumar Rayala, Professor, Department of Biotechnology, IIT Madras, Chennai, Tamilnadu.
14. Dr. K. Suresh Babu, Senior Principal Scientist, Department of Natural Products & Medicinal Chemistry, CSIR-IICT Hyderabad.
15. Dr. V. Sriram, Head of Analytical Development, Bluefish Pharmaceuticals India Pvt Ltd., Bengaluru.
16. Dr. J. Subba Rao, Sr. Group leader, Hetero Research and Foundation, Hyderabad.

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17. Dr Addada Ramakrishnam Raju, Senior Research Associative, Vasudha Pharma Chem LTD., Visakhapatnam.
18. Dr. Buchinaidu Nalluri, Director- Life Sciences, KLEF
19. Dr. K. Swapna, HOD- Physics, KLEF
20. Ms. Gudimetla Namaswini, Student Representative, KLEF
21. MS. Korukonda Srikala, Student Representative, KLEF
22. Ms. Shaik.Almas Nousheen, Student Representative, KLEF
23. Mr. Katari Anil, Student Representative, KLEF
24. Ms. Golla Teja Vijaya Durga, Student Representative, KLEF
25. Ms. M. Harini, Student Representative, KLEF
26. Ms. B. Vineetha, Student Representative, KLEF
27. Mr. B. Rajesh, Student Representative, KLEF.

Members Absent:

1. Dr. Moru Satyanarayana, Assoc. Professor, VIT-AP, Amaravathi, AP, India.
2. Miss Gayatri Annapareddy, Scientist 2, Eurofins Scientifics, USA.
3. Dr Srinivas Endoori, Research Associate, Advenchen Laboratories LLC, Moorpark, California, USA.

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The 11th Board of Studies meeting of the Department of Chemistry was convened in virtual mode. The Chair welcomed the members and presented the restructured Y26 M.Sc. Chemistry programme, revised syllabi, Programme Development Document (PDD), and the Action Taken Report on stakeholder feedback. The Board was informed that the restructuring was undertaken after considering inputs from academic peers, alumni, faculty, industry personnel, parents and students, with particular emphasis on AI-enabled chemistry education, contemporary laboratory and analytical skills, research training, industry exposure, transparent assessment and career readiness.

After due deliberations, the following resolutions have been adopted.

AGENDA and RESOLUTIONS

AGENDA ITEM 1:

To review and approve the minutes and Action Taken Report (ATR) of the previous Board of Studies meeting.	**Recommended for approval in academic council**

Recommendation: The previous BoS minutes and ATR were placed before the Board. The Chair also briefed the members on the subsequent DAC deliberations and stakeholder consultations that informed the Y26 curriculum revision. The Board noted that the feedback had been systematically translated into curricular, assessment, research and employability-related actions.

Resolution: The minutes and ATR of the previous BoS meeting were approved. The Board recommended that stakeholder feedback and the corresponding curricular action should continue to be documented as evidence of continuous academic improvement.

AGENDA ITEM-2

To review and approve the restructured Y26 M.Sc. Chemistry Programme Structure.	**Recommended for approval in academic council**

Recommendation: The Board reviewed the Y26 programme structure in the light of stakeholder feedback and compared the proposed changes with the earlier structure.

- As recommended by academic peers, the curriculum was restructured to retain strong core-chemistry foundations while introducing AI, computational chemistry, data science and research-oriented learning.
- In response to academic-peer feedback seeking greater research weightage, 26IE5101 Research Design, Scientific Writing & Literature Seminar (1-1-0-0, 2 Cr) was positioned early in the programme, followed by 26IE6301 Term Paper & Dissertation Proposal (0-0-6-0, 3 Cr) and 26IE6401 Dissertation – Execution, Thesis & Defense (0-0-22-0, 11 Cr).
- As suggested by alumni, students and industry personnel, 26IE6101 Summer Internship & Industry Project (0-0-8-0, 4 Cr) was introduced as a formal credit-bearing experiential component.

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• As recommended by students and faculty, specialization electives were strengthened to provide contemporary Analytical and Organic Chemistry pathways with greater application, instrumentation, synthesis and research relevance.

• The programme also includes professional communication, IPR/regulatory awareness, laboratory safety/data integrity and placement-readiness components in response to parent, industry, alumni and student feedback.

Resolution: The Board approved the restructured Y26 M.Sc. Chemistry programme structure, subject to final harmonization of course codes, categories, semester placement and L–T–P–S representation across the programme structure, PDD, detailed syllabi and ERP records and recommended for approval in academic council.

The detailed structure of M. Sc Chemistry 2026 admitted batch is shown in **Annexure- I**

AGENDA ITEM – 3

To review and approve the revised syllabi of the courses under the Y26 M.Sc. Chemistry curriculum.	**Recommended for approval in academic council**

Recommendation: The revised syllabi were reviewed with reference to the stakeholder expectations for contemporary, multidisciplinary and application-oriented chemistry education.

• As suggested by academic peers, 26CY5103 Stereochemistry & Strategic Synthesis (3-0-2-0, 4 Cr) was strengthened with stereochemical prediction, retrosynthetic planning, strategic synthesis and verification of synthetic outcomes.

• Academic-peer feedback on multidisciplinary learning was addressed by strengthening biomolecular chemistry through Chemistry of Biomolecules – Structure, Reactivity & Biological Function (3-0-2-0, 4 Cr), with greater relevance to biological and interdisciplinary research.

• As suggested by alumni and students, the Analytical Chemistry pathway was strengthened through modern chromatography, electroanalytical/sensor methods, hyphenated and trace analysis, sampling/method development, forensic/environmental applications and nano-characterization.

• Student and faculty feedback seeking stronger organic synthesis and drug/research-oriented content was addressed through heterocyclic chemistry, advanced structure elucidation, mechanistic synthetic strategy, natural-product discovery, catalysis, asymmetric synthesis and related advanced electives.

• Student feedback on sustainability and global challenges was addressed through Green Chemistry, Catalysis & the Circular Molecular Economy (3-0-0-0, 3 Cr), with sustainability principles reinforced across relevant courses and research activities.

Resolution: The revised syllabi were approved subject to minor course-level corrections, removal of unnecessary overlap, verification of CO–BTL alignment, and consistency of course codes, L–T–P–S and credits in all approved academic documents and recommended for approval in academic council.

The revised syllabus for the courses is shown in **Annexure – II.**

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AGENDA ITEM 4

To review and approve the integration of Artificial Intelligence, Computational Chemistry, Data Science, Cheminformatics, Machine Learning and Generative AI components.	Recommended for approval in academic council

Recommendation: The Board noted that AI and computational integration was one of the strongest recurring recommendations in the stakeholder feedback.

- Academic peers specifically recommended integrating AI, computational chemistry and data-science skills without diluting the depth of core chemistry.
- Industry personnel recommended computational/AI exposure combined with advanced instrumentation, internships, case studies and expert interaction.
- Students requested modern computational tools that would help them understand molecular data and current research practices.
- Faculty recommended AI-driven learning and assessment with clear academic-integrity and responsible-use guidelines.
- Accordingly, the Y26 curriculum introduces Computational Thinking & Data Science for Chemists (2-0-4-0, 4 Cr), Cheminformatics & Machine Learning for Molecules (2-0-4-0, 4 Cr), and Generative AI & Autonomous-Lab Chemistry (2-0-2-0, 3 Cr) as a progressive AI/computational sequence.
- The Board further noted that chemistry-specific datasets, molecular modelling, cheminformatics, AI-assisted problem solving, model validation and research-oriented computational assignments should form part of course delivery.

Resolution: The Board approved the AI/computational pathway. It was resolved that AI shall be used as an enabling tool to strengthen chemical reasoning, data interpretation and research productivity, while maintaining strong experimental and theoretical chemistry foundations. Responsible AI use, model reliability, reproducibility and academic integrity shall be explicitly addressed.

The revised syllabus for the courses is shown in **Annexure – II.**

AGENDA ITEM 5

To review the Stakeholder Feedback and Action Taken Report and consider the recommendations incorporated into the Y26 curriculum.	Recommended for approval in academic council

Recommendation: The stakeholder feedback and ATR were reviewed category-wise. The Board appreciated that the recommendations were not treated as isolated suggestions but were mapped to specific curricular and co-curricular interventions.

- Academic peers: AI/computational integration, biomolecular and multidisciplinary learning, research methodology, scientific communication, dissertation and publication-oriented training.
- Alumni: industry exposure, internship, modern instrumentation, practical data handling, scientific writing and presentation skills.
- Faculty: AI-supported learning, application-oriented assessment, experiential learning, employability-oriented analytical courses, protection of core-chemistry depth, research milestones and CO–BTL-aligned rubrics.

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• Industry personnel: IPR/patent awareness, regulatory knowledge, AI/computational exposure, advanced instrumentation, industry case studies and internships.

• Parent feedback: placement readiness, practical career preparation, internships and industry exposure.

• Student feedback: industry visits, hands-on learning, AI tools, research projects and presentations, sustainability, modern analytical instrumentation, advanced organic synthesis, laboratory safety/data integrity, career preparation and regular assessment feedback.

Resolution: The Board accepted the Stakeholder Feedback Analysis and ATR and endorsed the actions incorporated into the Y26 curriculum. The Department shall continue periodic stakeholder consultation and maintain evidence of implementation and outcomes for future curriculum review.

AGENDA ITEM 6:

To review and approve the strengthened experiential and research-learning components.	**Recommended for approval in academic council.**

Recommendation: The Board reviewed the research and experiential pathway particularly in response to feedback from academic peers, alumni, faculty, students and industry personnel.

• Academic peers recommended increased research/dissertation weightage and publication-oriented training.

• Alumni and students requested internships, hands-on exposure, industry visits and opportunities to present scientific work.

• Faculty recommended structured research milestones and greater experiential learning throughout the programme.

• Industry personnel recommended internships, case-based learning and interaction with practicing scientists.

• The resulting Y26 pathway includes 26IE5101 Research Design, Scientific Writing & Literature Seminar (1-1-0-0, 2 Cr), 26IE6101 Summer Internship & Industry Project (0-0-8-0, 4 Cr), 26IE6301 Term Paper & Dissertation Proposal (0-0-6-0, 3 Cr), and 26IE6401 Dissertation – Execution, Thesis & Defence (0-0-22-0, 11 Cr).

Resolution: The Board approved the strengthened research and experiential-learning pathway. The Department shall use defined learning outcomes, review milestones, supervisor responsibilities, evaluation rubrics, research documentation and presentation/defence requirements for these components.

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AGENDA ITEM 7:

To review measures for strengthening industry and research readiness of M.Sc. Chemistry students.	**Recommended for approval in academic council.**

Recommendation: The Board reviewed the employability and professional-readiness provisions introduced in response to alumni, industry, parent and student feedback.

• Industry feedback on IPR and regulatory knowledge is addressed through Intellectual Property Rights & Patent Laws for Chemists and Pharmaceutical & Regulatory Affairs.

• Alumni and student feedback on instrumentation and industry practices is addressed through advanced analytical/spectroscopic courses, workshops, demonstrations, laboratory/research exposure and internship.

• Student feedback on laboratory safety and data integrity is addressed through Laboratory Safety, GxP & Data Integrity and reinforced during practical/research work.

• Parent and student feedback on employability is addressed through Professional Communication & Quantitative Aptitude, internship/industry exposure and Capstone Placement & Career Readiness.

• Scientific writing, literature review, seminars and research presentations are embedded across the research pathway in response to academic-peer and alumni feedback.

Resolution: The Board endorsed the industry- and research-readiness measures and recommended systematic documentation of internships, industrial visits, expert lectures, instrumentation exposure, safety/GxP training, scientific communication activities and placement outcomes.

AGENDA ITEM 8:

To consider any other academic matter with the permission of the Chair.	**Recommended for approval in academic council.**

Recommendation: The Board discussed the need to maintain consistency between the final Y26 programme structure, PDD, detailed syllabi, stakeholder ATR and ERP records. Members observed that the final controlled documents should use uniform course codes, categories, semester placement, L–T–P–S and credit/contact-hour conventions.

• The AI/computational courses should carry one approved code convention consistently across all documents.

• Elective-course coding and the PE-V/PE-VI choice mechanism should be presented uniformly in the structure and PDD.

• The semester placement and code of Laboratory Safety, GxP & Data Integrity should be standardized.

• The code and L–T–P–S of Capstone Placement & Career Readiness should be made consistent.

• Contact-hour treatment for internship and S (self-study) components should follow one institutional convention.

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Resolution: The Board resolved that the Department shall prepare one master Y26 programme structure and synchronize the PDD, syllabi, ERP, BoS annexures and stakeholder ATR with it before final implementation. The meeting concluded with a vote of thanks to the Chair and all members.

AGENDA ITEM 9:

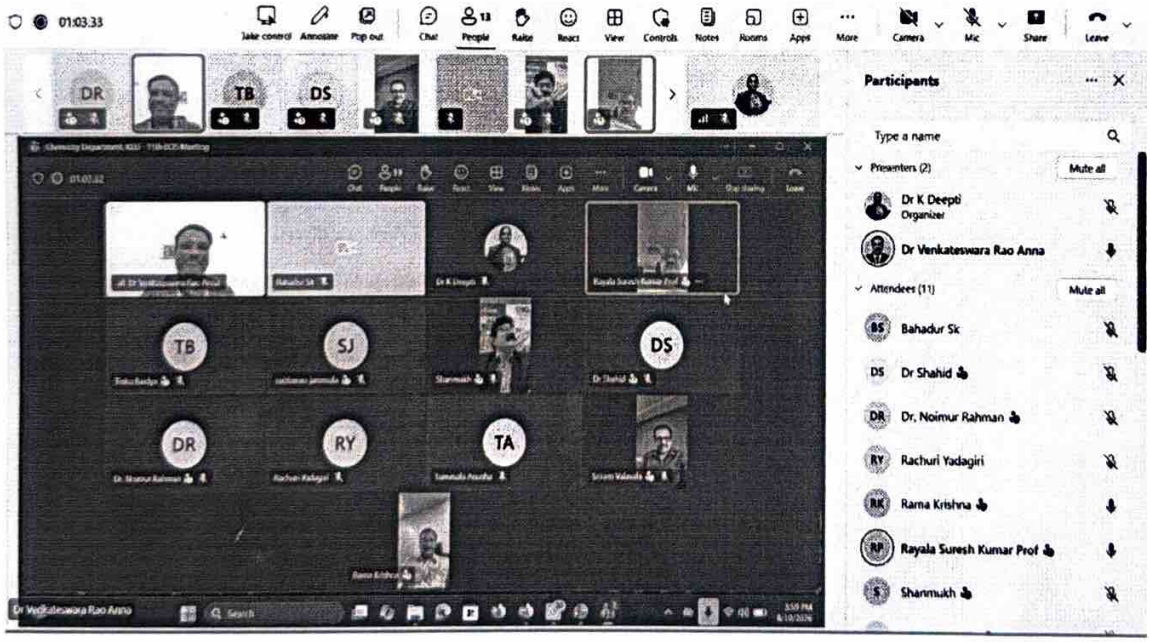
To review and finalize the PDD for Y26 regulation.	**Recommended for approval in academic council.**

Recommendation: To approve the PDD of M. Sc Chemistry program for Y26 regulation.

Resolution: It was resolved that the PDD for Y26 regulation is approved in BOS and recommended to present in academic council for approval.

Final BoS Recommendation

The Board recommended approval of the restructured Y26 M.Sc. Chemistry curriculum, revised syllabi, AI/computational integration, assessment framework, research/internship pathway and employability initiatives, noting that these revisions appropriately respond to the documented feedback received from academic peers, alumni, faculty, industry personnel, parents and students. Approval is subject to incorporation of the minor harmonization and documentation corrections recorded above.



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S. No.	Name	Designation	Position	Signature
1	Dr A Venkateswara Rao	HoD	Chairperson	
2	Dr K R S Prasad	Dean-SA & Professor	Faculty Representative	
3	Dr J V Shanmukha Kumar	Professor	Faculty Representative	
4	Dr. Niranjan Patra	Associate Professor	Faculty Representative	
5	Dr. K. Deepti	Assistant Professor & Dy. HoD	Prof. In Charge-Academics/ Cohort In charge	
6	Dr. T. Anusha	Assistant Professor/ RPAC	Faculty Representative	
7	Dr. Tinku Baidya	Assistant Professor	Faculty Representative	
8	Dr. Md. Shahid	Assistant Professor	OBE In charge	
9	Dr. R. Yadagiri	Assistant Professor	TLP In charge	
10	Dr. R. Sreenivasulu	Assistant Professor	Faculty Representative	
11	Dr. Sk. Bahadur	Assistant Professor	Faculty Representative	
12	Dr. Noimur Rahman	Assistant Professor	Faculty Representative	
11	Prof. Suresh Kumar Rayala	Professor, Department of Biotechnology IIT Madras, Chennai, Tamil Nadu.	Subject Expert	Attended online
12	Dr. K. Suresh Babu	Senior Principal Scientist, Department of Natural Products & Medicinal Chemistry CSIR-IICT Hyderabad.	Subject Expert	Attended online
13	Dr. V. Sriram	Head of Analytical Development Bluefish Pharmaceuticals India Pvt Ltd., Bengaluru.	Industry Representative	Attended online
14	Dr. J. Subba Rao	Sr. Group leader Hetero Research and Foundation, Hyderabad.	Industry Representative	Attended online
15	Dr Addada Ramakrishnam Raju	Senior Research Associative, Vasudha Pharma Chem LTD., Visakhapatnam.	Alumni Representative	Attended online
16	Dr. Buchi Naidu Nalluri	Director- Life Sciences, KLEF	Faculty from other department	Attended online
17	Dr. K. Swapna	Physics-HOD, KLEF	Faculty from other department	Attended online

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18	Gudimetla Namaswini	II M. Sc student, KLEF	Student Representative	Attended online
19	Korukonda Srikala	II M. Sc student, KLEF	Student Representative	Attended online
20	Shaik.Almas Nousheen	II M. Sc student, KLEF	Student Representative	Attended online
21	Katari Anil	II M. Sc student, KLEF	Student Representative	Attended online
22	Golla Teja Vijaya Durga	II M. Sc student, KLEF	Student Representative	Attended online
23	M. Harini	I M. Sc student, KLEF	Student Representative	Attended online
24	B. Vineetha	I M. Sc student, KLEF	Student Representative	Attended online
25	B. Rajesh Kumar	I M. Sc student, KLEF	Student Representative	Attended online

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ANNEXURE I: MODIFIED/ REARRANGED ACADEMIC STRUCTURE FOR Y26 REGULATION

It is resolved and approved in the BOS meeting that the modified course structure is approved. The same is permitted by the external, internal, and other stakeholders of BOS for inclusion of modified structure.

SEMESTER 1												
SNO	SEM	Course code	COURSE NAME	Mode	Type	L	T	P	S	CR	CH	Pre requisites
1	1	26CY5101	MOLECULAR ARCHITECTURE & SYMMETRY-DRIVEN SPECTROSCOPY	R	PCC	3	0	0	0	3	3	NIL
2	1	26CY5102	QUANTUM FOUNDATIONS & MECHANISTIC REASONING	R	PCC	3	0	2	0	4	5	NIL
3	1	26CY5103	STEREOCHEMISTRY & STRATEGIC SYNTHESIS	R	PCC	3	0	2	0	4	5	NIL
4	1	26CY5104	INORGANIC BONDING & D-BLOCK COORDINATION CHEMISTRY	R	PCC	3	0	2	0	4	5	NIL
5	1	26CY5105	COMPUTATIONAL THINKING & DATA SCIENCE FOR CHEMISTS	R	PCC	2	0	4	0	4	6	NIL
6	1	26IE5101	RESEARCH DESIGN, SCIENTIFIC WRITING & LITERATURE SEMINAR	R	PRI	1	1	0	0	2	2	NIL
7	1	26UC5104	PROFESSIONAL COMMUNICATION & QUANTITATIVE APTITUDE	R	AUC	0	0	4	0	0	4	NIL
									TOTAL	21	24	
SEMESTER 2												
SNO	SEM	Course code	COURSE NAME	Mode	Type	L	T	P	S	CR	CH	Pre requisites
8	2	26CY5206	GREEN CHEMISTRY, CATALYSIS AND THE CIRÇULAR MOLECULAR ECONOMY	R	PCC	3	0	0	0	3	3	NIL
9	2	26CY5207	REACTION DYNAMICS AND MOLECULAR PROCESSES	R	PCC	3	0	2	0	4	5	NIL
10	2	26CY5208	CHEMISTRY OF BIOMOLECULES — STRUCTURE, REACTIVITY AND BIOLOGICAL FUNCTION	R	PCC	3	0	2	0	4	5	NIL
11	2	26CY5209	CHEMINFORMATICS AND MACHINE LEARNING FOR MOLECULES	R	PCC	2	0	4	0	4	6	NIL
12	2	26CY52E1	SEPARATION SCIENCE AND MODERN CHROMATOGRAPHY	R	PEC 1	3	0	0	0	3	3	NIL

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13	2	26CY52E3	HETEROCYCLIC FRAMEWORKS AND FUNCTIONAL-GROUP ENGINEERING	R	PEC 1	3	0	0	0	3	3	NIL
14	2	26CY52E2	ELECTROANALYTICAL, THERMAL AND SENSOR-BASED METHODS	R	PEC 2	2	2	0	0	4	4	NIL
15	2	26CY52E4	ADVANCED STRUCTURE ELUCIDATION — MULTINUCLEAR NMR, HRMS & HYPHENATED SPECTROSCOPY	R	PEC 2	2	2	0	0	4	4	NIL
16	2	26IE5202/ OEXXXXX	OPEN ELECTIVE I: INTELLECTUAL PROPERTY RIGHTS AND PATENT LAWS FOR CHEMISTS	R	OEC 1	3	0	0	0	3	3	NIL
									TOTAL	**29**	**34**	

SUMMER INTERNSHIP

SNO	SEM	Course code	COURSE NAME	Mode	Type	L	T	P	S	CR	CH	Pre requisites
17	2	26IE6101	SUMMER INTERNSHIP AND INDUSTRY PROJECT	R	PRI	0	0	8	0	4	0	NIL
									TOTAL	**4**	**0**	

SEMESTER 3

SNO	SEM	Course code	COURSE NAME	Mode	Type	L	T	P	S	CR	CH	Pre requisites
18	3	26CY6110	GENERATIVE AI AND AUTONOMOUS-LAB CHEMISTRY	R	PCC	2	0	2	0	3	4	NIL
19	3	26CY61E5	HYPHENATED AND TRACE ANALYSIS	R	PEC 3	3	0	0	4	4	7	NIL
20	3	26CY61E9	MECHANISTIC ORGANIC CHEMISTRY AND SYNTHETIC STRATEGY	R	PEC 3	3	0	0	4	4	7	NIL
21	3	26CY61E6	MODERN ANALYTICAL SCIENCE AND SAMPLING	R	PEC 4	3	0	0	4	4	7	NIL
22	3	26CY61E10	NATURAL-PRODUCT DISCOVERY AND MODERN CATALYSIS	R	PEC 4	3	0	0	4	4	7	NIL
23	3	26CY61E7	FOOD, ENVIRONMENTAL AND FORENSIC ANALYSIS	R	PEC 5	3	0	0	0	3	3	NIL
24	3	26CY61E11	ASYMMETRIC CATALYSIS AND MODERN SYNTHESIS	R	PEC 5	3	0	0	0	3	3	NIL

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25	3	26CY61E8	NANO CHARACTERIZATION AND SURFACE ANALYSIS	R	PEC 6	3	0	0	0	3	3	NIL
26	3	26CY61E12	PEPTIDE, POLYMER AND MATERIALS ORGANIC CHEMISTRY	R	PEC 6	3	0	0	0	3	3	NIL
27	3	OEXXXXX	PHARMACEUTICAL AND REGULATORY AFFAIRS	R	OEC 2	3	0	0	0	3	3	NIL
28	3	26IE6301	TERM PAPER AND DISSERTATION PROPOSAL	R	PRI	0	0	6	0	3	6	NIL
									TOTAL	23	33	

SEMESTER 4

SNO	SEM	Course code	COURSE NAME	Mode	Type	L	T	P	S	CR	CH	Pre requisites
28	4	26IE6401	DISSERTATION — EXECUTION, THESIS AND DEFENCE	R	PRI	0	0	22	0	11	22	NIL
29	4	26UC6401	LABORATORY SAFETY, GXP AND DATA INTEGRITY	M	AUC	0	0	2	0	0	2	NIL
30	4	26UC6402	CAPSTONE PLACEMENT AND CAREER READINESS			0	0	4	0	0	4	NIL
									TOTAL	11	26	
									GRAND TOTAL	88	117	NIL

Type	Sum of CR	No. of Courses
AUC	0	2
OEC	6	2
PCC	37	10
PEC	21	6
PRI	20	4
Grand Total	88	24

Semester	Sum of CR	Sum of CH
1	21	24
2	33	34
3	23	33
4	11	26
Grand Total	88	117

Legend: PCC - Professional Core related to Major area, PEC - Professional Elective Courses related to Specialization, PRI - Project, Research or Internship Courses, AUC - Audit Courses, VAC - Value Added Courses, OEC - Open Elective.

Graduation requirements: Successful attainment of 88 credits, obtain all PEC credits from courses of specific specialization domain, complete 1 Scopus publication and obtain Satisfactory in all 0 credit courses (AUC, VAC and PRI categories)

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ANNEXURE III: Program structure (with all Courses) containing following categorization.

Course Name	Course Category	L	T	P	S	CR	Pre-Requisite	New Course/Revised Course/ Retained Course	Focused on Employability /Entrepreneurship /Skill Development
PROFESSIONAL COMMUNICATION & QUANTITATIVE APTITUDE	AUC	0	0	4	0	0	NIL	Revised	Employability
LABORATORY SAFETY, GXP AND DATA INTEGRITY	AUC	0	0	2	0	0	NIL	New Course	Employability
MOLECULAR ARCHITECTURE & SYMMETRY-DRIVEN SPECTROSCOPY	PCC	3	0	0	0	3	NIL	Revised	Employability
QUANTUM FOUNDATIONS & MECHANISTIC REASONING	PCC	3	0	2	0	4	NIL	Revised	Skill Development
STEREOCHEMISTRY & STRATEGIC SYNTHESIS	PCC	3	0	2	0	4	NIL	Revised	Skill Development
INORGANIC BONDING & D-BLOCK COORDINATION CHEMISTRY	PCC	3	0	2	0	4	NIL	Revised	Skill Development
COMPUTATIONAL THINKING & DATA SCIENCE FOR CHEMISTS	PCC	2	0	4	0	4	NIL	New Course	Skill Development
GREEN CHEMISTRY, CATALYSIS AND THE CIRCULAR MOLECULAR ECONOMY	PCC	3	0	0	0	3	NIL	New Course	Employability
REACTION DYNAMICS AND MOLECULAR PROCESSES	PCC	3	0	2	0	4	NIL	Revised	Skill Development
CHEMISTRY OF BIOMOLECULES — STRUCTURE, REACTIVITY AND BIOLOGICAL FUNCTION	PCC	3	0	2	0	4	NIL	Revised	Employability
CHEMINFORMATICS AND MACHINE LEARNING FOR MOLECULES	PCC	2	0	4	0	4	NIL	New Course	Skill Development
GENERATIVE AI AND AUTONOMOUS-LAB CHEMISTRY	PCC	2	0	2	0	3	NIL	New Course	Skill Development
SEPARATION SCIENCE AND MODERN CHROMATOGRAPHY	PEC 1	3	0	0	0	3	NIL	Revised	Employability
HETEROCYCLIC FRAMEWORKS AND FUNCTIONAL-GROUP ENGINEERING	PEC 1	3	0	0	0	3	NIL	New Course	Employability

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Course Name	Course Category	L	T	P	S	CR	Pre-Requisite	New Course/Revised Course/ Retained Course	Focused on Employability /Entrepreneurship /Skill Development
ELECTROANALYTICAL, THERMAL AND SENSOR-BASED METHODS	PEC 2	2	2	0	0	4	NIL	Revised	Skill Development
ADVANCED STRUCTURE ELUCIDATION — MULTINUCLEAR NMR, HRMS & HYPHENATED SPECTROSCOPY	PEC 2	2	2	0	0	4	NIL	Revised	Skill Development
HYPHENATED AND TRACE ANALYSIS	PEC 3	3	0	0	4	4	NIL	Revised	Skill Development
MECHANISTIC ORGANIC CHEMISTRY AND SYNTHETIC STRATEGY	PEC 3	3	0	0	4	4	NIL	Revised	Skill Development
MODERN ANALYTICAL SCIENCE AND SAMPLING	PEC 4	3	0	0	4	4	NIL	Revised	Skill Development
NATURAL-PRODUCT DISCOVERY AND MODERN CATALYSIS	PEC 4	3	0	0	4	4	NIL	Revised	Skill Development
FOOD, ENVIRONMENTAL AND FORENSIC ANALYSIS	PEC 5	3	0	0	0	3	NIL	Revised	Employability
ASYMMETRIC CATALYSIS AND MODERN SYNTHESIS	PEC 5	3	0	0	0	3	NIL	New Course	Employability
NANO CHARACTERIZATION AND SURFACE ANALYSIS	PEC 6	3	0	0	0	3	NIL	New Course	Employability
PEPTIDE, POLYMER AND MATERIALS ORGANIC CHEMISTRY	PEC 6	3	0	0	0	3	NIL	New Course	Employability
OPEN ELECTIVE I: INTELLECTUAL PROPERTY RIGHTS AND PATENT LAWS FOR CHEMISTS	OEC 1	3	0	0	0	3	NIL	Revised	Employability
PHARMACEUTICAL AND REGULATORY AFFAIRS	OEC 2	3	0	0	0	3	NIL	Revised	Employability
RESEARCH DESIGN, SCIENTIFIC WRITING & LITERATURE SEMINAR	PRI	1	1	0	0	2	NIL	Revised	Skill Development

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Course Name	Course Category	L	T	P	S	CR	Pre-Requisite	New Course/Revised Course/ Retained Course	Focused on Employability /Entrepreneurship /Skill Development
SUMMER INTERNSHIP AND INDUSTRY PROJECT	PRI	0	0	8	0	4	NIL	New Course	Skill Development
TERM PAPER AND DISSERTATION PROPOSAL	PRI	0	0	6	0	3	NIL	Revised	Skill Development
DISSERTATION — EXECUTION, THESIS AND DEFENCE	PRI	0	0	22	0	11	NIL	Revised	Skill Development
CAPSTONE PLACEMENT AND CAREER READINESS		0	0	4	0	0	NIL	New Course	Employability

Percentage of Syllabus Revision= 100%

Percentage of Courses focusing on Employability= 14/30=46.6%

Percentage of Courses focusing on Entrepreneurship= Nil

Percentage of Courses focusing on Skill Development = 17/30=56.6%

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