VIGNAN'S
FOUNDATION FOR SCIENCE, TECHNOLOGY & RESEARCH
(Deemed to be University) Estd. u/s 3 of UGC Act 1956

DEPARTMENT OF CHEMISTRY

CIRCULAR

Date: 01.09.2025

The Department of Chemistry is going to conduct Department Council (DC)/DAAC meeting for finalizing Chemistry and Environmental Science courses related B.Tech. and M.Sc. (Chemistry and Organic Chemistry) offered as per R25 & C25 curriculum on **03.09.2025** from **2.00 9m onwards**. The meeting will be held at Office of Dean AS&H, 3rd Floor, A Block, VFSTR. All the members are requested to make it convenient to attend the meeting.

The Department Council members are

S. No.	Faculty name and Designation	Role	Signature
1	Dr. K. Prabhakara Rao, HOD and Professor	Chairman	
2	Dr. N. Srinivasu, Dean SASH and Professor	Member	
3	Dr. N. Satya Sree, Professor	Member	
4	Dr. Sk. Anwar, Professor	Member	
5	Dr. Chandrasekhar Kuppan, Professor	Member	
6	Dr. M. Sireesha, Associate Professor	Member	
7	Dr. M. V. K. Srivani, Associate Professor	Member	
8	Dr. K. Mariadas, Assistant Professor	Member	
9	Dr. Sudip Mandal, Assistant Professor and BoR	Member	
10	Dr. K. Ravi Kumar, Associate Professor	Convener	

Invited Faculty members

S. No.	Faculty name and Designation	Signature
1	Dr. V. Srinivasadesiken, Associate Professor	
2	Dr. T. Bharat Kumar, Associate Professor	
3	Dr. PVVN Kishore, Associate Professor	
4	Dr. N. Satya Vijaya Kumar, Assistant Professor	
5	Dr. Tejaswani, Assistant Professor	
6	Dr. Y. S. L. V. Narayana, Assistant Professor	
7	Dr. P. Srinivasu, Assistant Professor	
8	Dr. U. Kiran Sagar, Assistant Professor	

Agenda of the DAAC Meeting:

1. To discuss and finalize the syllabi of various Chemistry and Environmental Science courses offered by the Department of Chemistry in R25 B.Tech. and M.Sc. curriculum.
2. Analyzing the stakeholders feedback on curriculum of various UG programs and core departments suggestions.
3. Approval of two common chemistry course such as Engineering Chemistry for primarily non-bio branches (majorly MPC students) and Organic Chemistry for Bio-related branches and Chemical (majorly BiPC students), with no changes in the contents of the syllabuses and Environmental Studies is common for All Branches of B. Tech first year second semester.
4. Any modifications required for proposed M.Sc. Chemistry and M.Sc. Organic Chemistry courses introduced as per R25 curriculum.
5. Finalizing the Department electives & Open elective courses offered to UG and PG programmes.
6. Discussion of attainments- process, rubrics, CO/PO/PSO and SO values.

Chairperson

VIGNAN'S
FOUNDATION FOR SCIENCE, TECHNOLOGY & RESEARCH
(Deemed to be University) Estd. u/s 3 of UGC Act 1956

DEPARTMENT OF CHEMISTRY

CIRCULAR

Date: 03.09.2025

Minutes of Department Academic Advisory Committee (DAAC) Meeting

The Department of Chemistry conducted the Department Council (DC)/DAAC meeting on 03-09-2025 from 2.00 pm onwards at the Office of Dean AS&H, 3rd Floor, A Block, VFSTR. The Meeting was held for finalizing the Chemistry and Environmental Science courses related to B.Tech. and M.Sc. (Chemistry & Organic Chemistry) offered as per the R25 (C25) curriculum in the upcoming even semester.

The following members attended the Meeting:

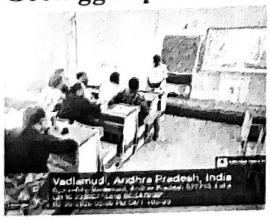
S. No.	Faculty name and Designation	Role	Signature
1	Dr. K. Prabhakara Rao, HOD and Professor	Chairman	
2	Dr. K. Ravi Kumar, Associate Professor	Convener	
3	Dr. N. Srinivasu, Dean SASH and Professor	Member	
4	Dr. N. Satya Sree, Professor	Member	
5	Dr. Sk. Anwar, Professor	Member	
6	Dr. Chandrasekhar Kuppan, Professor	Member	
7	Dr. M. Sireesha, Associate Professor	Member	
8	Dr. M. V. K. Srivani, Associate Professor	Member	
9	Dr. K. Mariadas, Assistant Professor	Member	
10	Dr. Sudip Mandal, Assistant Professor and BoR	Member	
11	Dr. V. Srinivasadesiken, Associate Professor	Invited Member	

12	Dr. T. Bharat Kumar, Associate Professor	Invited Member	
13	Dr. PVVN Kishore, Associate Professor	Invited Member	
14	Dr. N. Satya Vijaya Kumar, Assistant Professor	Invited Member	
15	Dr. Tejaswani, Assistant Professor	Invited Member	
16	Dr. U. Kiran Sagar, Assistant Professor	Invited Member	
17	Dr. Y. S. L. V. Narayana, Assistant Professor	Invited Member	
18	Dr. P. Srinivasu, Assistant Professor	Invited Member	

Agenda of the DAAC Meeting:

1. Review of feedback collected from Students, Faculty, Employer, Parents and Alumni during the academic year 2025-2026 (first semester).
2. Discussion and proposal of any necessary modifications required to the R25(C25) B.Tech. First year, M.Sc. Chemistry and M.Sc. Organic Chemistry curriculum based on feedback insights.
3. Discussion and approval of syllabi for various Chemistry and Environmental Science courses offered by the Department of Chemistry in R25 B.Tech. and M.Sc. curriculum.
4. Discussion and approval of SDG's and IKS components in the syllabus.
5. Discussion of workshops, conferences organized by the Department.
6. Various responsibilities of faculty members at the Department level.
7. Preparing or update the available digital content as per the new changes in the Chemistry and Environmental studies courses offered to UG and PG programmes.
8. Analysis of results from formative and summative assessments, with particular focus on the correlation between theory and lab marks, to inform curriculum design.
9. Finalizing the Department electives & Open elective courses offered to UG and PG programmes.
10. Discussion of attainments- process, rubrics, CO/PO/PSO and SO values.

Geotagged photos during the meeting:



Summary of the Department Council (DC)/DAAC meeting:

The Chairman of the DAAC convened the meeting to review and finalize curriculum matters pertaining to the R25 (C25) regulations for B.Tech. (Chemistry and Environmental Science) and M.Sc. (Chemistry and Organic Chemistry) programmes. The members deliberated on stakeholder feedback, curriculum design, syllabi updates, approval of common courses, and assessment practices. The discussions emphasized the need to align the curriculum with industry requirements, higher education standards, and holistic student learning outcomes.

Major highlights of the discussions are as follows:

Stakeholder Feedback:

- Feedback from alumni, employers, students, parents, and faculty was analyzed. Members noted the need to strengthen industry-oriented skills and emphasize practical components in Chemistry and Environmental Science courses.

Curriculum Review:

- Several suggestions were made to incorporate interdisciplinary topics, sustainability aspects, and updated laboratory practices in the R25 curriculum for both B.Tech. and M.Sc. programmes.

Finalization of Syllabi:

- The syllabi of Chemistry and Environmental Science courses were thoroughly discussed. Minor content restructuring and inclusion of contemporary topics (e.g., green chemistry, analytical techniques) were suggested.

Approval of Common Courses:

- Engineering Chemistry was approved for non-bio branches (primarily MPC).
- Organic Chemistry was approved for bio-related and Chemical branches (primarily BiPC).
- Environmental Studies was approved as a common course for all B.Tech. first-year students.
- Minor/major modifications in content were accepted to improve clarity and relevance.
- Approval of new Minor course related to Environmental studies

Regulations and Curriculum Structure (M.Sc. Programmes):

- The proposed R25 regulations and curriculum structures for M.Sc. Chemistry and M.Sc. Organic Chemistry were reviewed and unanimously approved with minor refinements in such as introduction of pre-semester, work-in-Lieu credits and new elective courses.

Assessment Analysis:

- Assessment methods (Formative & Summative).
- Grading Schemes.
- Matrix for identifying slow learners and advanced learners

Summary of Resolutions / Outcomes

- Stakeholders' feedback was acknowledged and incorporated into curriculum revisions.
- Modifications in syllabi for Chemistry and Environmental Science courses were finalized and approved.
- Common courses (*Engineering Chemistry, Organic Chemistry, Environmental Studies*) were formally approved with content updates.
- R25 regulations and curriculum structures for M.Sc. Chemistry and M.Sc. Organic Chemistry were approved.

It was resolved that the suggested changes and recommendations will be incorporated into the curriculum drafts and forwarded to the Board of Studies (BoS) for review and approval. The detailed stakeholder feedback summary has been compiled and is appended as Annexure-I.

The recommendations of the DAAC will be formally submitted to the BoS for further consideration and necessary implementation.

Chairperson

Annexure I

Alumni Feedback Summary

The alumni strongly appreciated the curriculum, reporting a high level of satisfaction with its alignment to industry standards and program outcomes.

Feedback Area	Strongly Agree	Agree	Moderate	Disagree	Strongly Disagree
Foundation in Basic Engineering Concepts	96.8%	3.2%	0%	0%	0%
Course Contents aligned with Program Outcomes	97.6%	2.4%	0%	0%	0%
Electives addressed industry needs	95.8%	3.2%	1%	0%	0%
Ability to compete with peers from other universities	96.7%	2.3%	1%	0%	0%
Curriculum superiority over previous curriculum	96.9%	2.1%	1%	0%	0%

Average Rating (on a scale of 5):
All questions received ratings between 4.96 to 5.0, grading as Excellent.

Suggestions: None provided.

Employer Feedback Summary

Employers provided highly positive feedback, acknowledging the curriculum's alignment with industry demands and its effectiveness in developing student competencies.

Feedback Area	Strongly Agree	Agree	Moderate	Disagree	Strongly Disagree
Curriculum matches Program Outcomes	86.4%	13.6%	0%	0%	0%
Scope for improving IT industry skills	98.7%	1.3%	0%	0%	0%

Electives meet IT industry demands	92.5%	7.5%	0%	0%	0%
Tools & Technologies applicable to IT development	97.8%	2.2%	0%	0%	0%
Problem-Solving & Soft Skills prepare students for placement	92.8%	7.2%	0%	0%	0%

Average Rating:
Ratings ranged between 4.94 to 5.0, all graded Excellent.

Suggestions: None provided.

Faculty Feedback Summary

Faculty feedback reflected a balanced view, appreciating curriculum structure while suggesting minor improvements.

Feedback Area	Strongly Agree	Agree	Moderate	Disagree	Strongly Disagree
Curriculum aligned with Program Outcomes	24.2%	51.8%	24.0%	0%	0%
Enhances Problem-Solving & Core Skills	61.3%	26.2%	12.5%	0%	0%
Credit Allocation is Satisfactory	60.8%	26.7%	12.5%	0%	0%
LTP Distribution is Justifiable	36.4%	51.1%	12.5%	0%	0%
Electives enable learning in emerging technologies	73.9%	13.6%	12.5%	0%	0%
Curriculum supports Self-learning	74.1%	13.4%	12.5%	0%	0%
Course Composition (Science, Engineering, Humanities)	73.6%	13.9%	12.5%	0%	0%
Laboratory sessions improve technical skills	61.7%	25.8%	12.5%	0%	0%
Minor Projects enhance leadership and technical competency	62.1%	25.4%	12.5%	0%	0%

Average Rating:
Ranged between 4.53 to 4.75, all rated Excellent.

Suggestions:

- Include internships.

Student Feedback Summary

Students expressed a generally positive but slightly more critical view, suggesting infrastructural and pedagogical enhancements.

Feedback Area	Strongly Agree	Agree	Moderate	Disagree	Strongly Disagree
Curriculum Content	50.1%	26.2%	11.7%	7.3%	4.7%
Problem Solving & Core Competencies	50.4%	19.1%	9.5%	7.2%	13.8%
Support for Advanced and Slow Learners	50.6%	17.0%	20.5%	7.1%	4.8%
Contact Hour Distribution	52.3%	19.2%	9.5%	14.1%	4.9%
Electives for New Technologies	59.2%	12.4%	11.5%	9.5%	7.4%
Course Composition	57.0%	15.0%	14.0%	9.2%	4.8%
Laboratory Sessions	54.7%	19.1%	9.5%	9.4%	7.3%
Minor Projects	55.0%	18.9%	9.4%	9.3%	7.4%

Average Rating: 4.00 /5 with most rated Very Good, and some Excellent.

Suggestions:

- Clearly define learning outcomes.
- Provide more lab facilities and hands-on practice.
- Improve the timetable with better free class slots.
- Focus more on placements and practical exposure.

VIGNAN'S
FOUNDATION FOR SCIENCE, TECHNOLOGY & RESEARCH
(Deemed to be University) Estd. u/s 3 of UGC Act 1956

DEPARTMENT OF CHEMISTRY

Annexure II

DAAC Recommendation on Formative Question Paper Standard and CO-PO Attainment Target Fixing

1. Formative Assessment Question Paper Standards

In light of the academic performance and student feedback for the above subject, the DAAC recommends the following for the design and implementation of formative assessments (e.g., class tests, quizzes, assignments, internal exams):

- **Cognitive Level Balance**:
  Adopt Bloom's Taxonomy to balance the cognitive levels of questions:
  - 20–30% of questions at **Remembering and Understanding** levels
  - 40–50% at **Applying and Analyzing** levels
  - 20–30% at **Evaluating and Creating** levels (depending on program level)
- **Coverage of Course Outcomes (COs)**:
  Each assessment must explicitly map questions to Course Outcomes (COs), ensuring:
  - All COs are evaluated at least once across the assessments
  - Each CO is tested through questions at appropriate cognitive levels
- **Difficulty Level Calibration**:
  Based on the recent difficulty experienced by students, the question paper should maintain:
  - 30% **Easy** questions (direct concept-based)
  - 50% **Moderate** questions (application or derivation-based)
  - 20% **Difficult** questions (analytical, case-study, or open-ended)
- **Question Paper Review Process**:
  All formative question papers should undergo internal review to ensure:
  - Alignment with syllabus and COs
  - Reasonable difficulty and time-bound solvability
  - Clear instructions and grading rubrics

2. CO-PO Mapping and Attainment Target Fixing

Based on performance data and the difficulty level experienced by students in the current and previous cycles:

- **Attainment Level Thresholds**:
  - **Target Level 1 (Basic Attainment)**: ≥ 50% of students scoring above 40% marks in a CO
  - **Target Level 2 (Moderate Attainment)**: ≥ 60% of students scoring above 50% marks in a CO
  - **Target Level 3 (High Attainment)**: ≥ 70% of students scoring above 60% marks in a CO
- **Adjustment Based on Subject Difficulty**:
  - If **>50%** of students scored below 40% in a particular CO, re-evaluate the mapping of that CO to the assessments or revise the teaching-learning strategy.
  - For **subjects identified as difficult** based on trend analysis, a **target level reduction by 1** can be considered after discussion and justification.
- **Corrective Actions**:
  - For COs not meeting the target level:
    - Conduct remedial sessions focused on weak COs
    - Include more practice problems in those areas
    - Reassess teaching strategies and content delivery
- **PO Mapping and Aggregation**:
  - Use weighted averages of CO attainment levels to compute PO attainment
  - Ensure clarity and consistency in the mapping logic across courses

3. Recommendations for Future Improvement

- Establish a **question bank repository** categorized by COs, Bloom's level, and difficulty
- Incorporate **student feedback mechanisms** to refine assessment strategies
- Regularly **review attainment targets** based on academic data trends

Approved by:

DAAC Chairperson and HoD

Dean SASH

VIGNAN'S
FOUNDATION FOR SCIENCE, TECHNOLOGY & RESEARCH
(Deemed to be University) Estd. u/s 3 of UGC Act 1956

DEPARTMENT OF CHEMISTRY

Annexure III

Document on Identification of Slow and Advanced Learners
Prepared by: Department Academic Assessment Committee (DAAC)

1. Introduction

As part of the continuous academic improvement and student performance monitoring, the Department of Chemistry has undertaken the task in agreement with the Department Academic Assessment Committee (DAAC) to identify **slow learners** and **fast learners** based on their academic performance in internal assessments (Formative Assessment) three times a semester.

This initiative is aimed at providing focused support to underperforming student's and enriching opportunities to achiever's par excellence.

2. Criteria for Identification

2.1 Slow Learners

Low performing students are identified based on their marks obtained in **Module-1- Formative Assessment (T1-A+T2+T3, T4+T5)** and **Module- 2- Formative Assessment (T1-A+T2+T3)**. The threshold marks for categorizing a student as a slow learner are as follows:

- Marks ≤ **12** in **Module-1- Formative Assessment (T1-A+T2+T3) out of 30**
- Marks ≤ **15** in **Module-1- Formative Assessment (T4+T5) out of 30**
- Marks ≤ **12** in **Module-2- Formative Assessment (T1-A+T2+T3) out of 30**

A student scoring **less than or equal to the above prescribed norms** is considered a **slow learner**.

2.2 Advanced Learners

Fast learners are identified based on students active and consistent performance across all assessments in that subject. The threshold marks for identifying fast learners are:

- Marks > **20** in **Module-1- Formative Assessment (T1-A+T2+T3) out of 30**