



VIGNAN'S

Foundation for Science, Technology & Research

(Deemed to be UNIVERSITY)

Estd. in 3 of UGC Act 1956



DEPARTMENT OF BIOTECHNOLOGY

Action Taken Report on B. Tech Biotechnology Program R19 & R21 Feedback

Implemented in R22 introduced in the AY 2022 – 23

Action taken based on the suggestions from Students:

1. The Course Contents of Biotechnology Curriculum are in tune with the Program Outcomes
2. The Biotechnology Course Contents are designed to enrich laboratory Skills and Core competencies.
3. The Courses placed in the Biotechnology curriculum serve the needs of both advanced and slow learners.
4. Contact Hour Distribution among the various Course Components (LTP) is satisfiable.
5. The Electives offered will enrich the passion to learn new technologies in emerging areas.
6. The Curriculum provides an opportunity towards Self learning to realize the expectations.
7. The Composition of Basic Sciences, Engineering, Humanities and Management Courses in the curriculum is a right mix and satisfiable.
8. No. of Laboratory sessions Integrated with Theory Courses in Biotechnology have been sufficient to improve the technical skills.
9. Integration of Minor Project with Theory Courses offered in Biotechnology have enhanced the technical competency and leadership skills in the management of biotech related firms.

Analysis of Overall Feedback given by the Students on R19 & R21

Parameters	Strongly Agree	Agree	Moderate	Disagree	Strongly Disagree	Avg. Rating	Grade
Q1	61.9	16.9	7.6	3.6	0.7	4.078	Excellent
Q2	59.7	20.1	8.3	1.4	1.1	4.077	Excellent
Q3	61.5	19.4	6.5	2.5	0.7	4.103	Excellent
Q4	60.4	18	7.9	2.5	1.8	4.045	Excellent
Q5	64.4	15.5	6.5	4	0.4	4.119	Excellent
Q6	62.9	14.7	8.3	4.3	0.4	4.072	Excellent

Q7	63.7	15.5	6.8	3.6	1.1	4.092	Excellent
Q8	61.9	16.9	6.5	3.6	1.8	4.056	Excellent
Q9	69.8	22.1	6.3	0.7	0.4	4.581	Excellent

Itemized responses given to the Suggestions of Students

Suggestion: Invite more core companies to the campus placement

Action Taken: Institute is keep taking all the efforts for good placements for the students and it is being take care by T & P cell in consultation with department.

Suggestion: Need to improve lab facilities, maintenance, instrumental conditions and cleanliness

Action Taken: Immediate action taken to address lab concerns: lab facility upgrades, instrumental maintenance, and cleanliness measures implemented. Clear guidelines provided, and staff cooperation encouraged for a safe and efficient working environment.

Suggestion: Required more practice hours

Action Taken: R-22 has been redesigned to inculcate concept oriented and practice based learning in which a dedicated practice sessions and continuous assessment will be carried out.

Suggestion: Can introduce more department and open electives and reduce number of lecture hours and increase practical hours

Action Taken: It has been seamlessly integrated into the R-22 curriculum.

Suggestion: Increase lab hours

Action Taken: Conducted needs assessment and reviewed curriculum to identify areas for increased lab hours. Modified timetable, allocated resources, and engaged students to enhance practical learning experiences in R-22 which is aimed to provide a balanced and enriched educational environment.

Action taken based on the suggestions from Alumni:

1. The Curriculum laid a good foundation in understanding the basic engineering concepts in Biotechnology.
2. The Course Contents of Biotechnology Curriculum are in tune with the Program Outcomes.
3. The Biotechnology Curriculum encompasses all the required Job Oriented Skills.
4. Professional and Open Electives of Curriculum serve the technical advancements needed in the Biotech, Biologics and Pharma industry.
5. The Tools and Technologies learnt during laboratory sessions will enrich the quality control and quality assurance in Biotechnology industry.

Analysis of Overall Feedback given by the Alumni on R19

Parameters	Strongly Agree	Agree	Moderate	Disagree	Strongly Disagree	Avg. Rating	Grade
Q1	90.4	7.8	0.8	0	0	4.856	Excellent
Q2	94.9	3.7	0.3	0	0	4.902	Excellent
Q3	92.2	6.1	0.5	0	0	4.869	Excellent
Q4	93.3	5.3	0	0	0.3	4.88	Excellent
Q5	93.9	5.1	0	0	0	4.899	Excellent
Q6	94.9	3.5	0.5	0	0	4.9	Excellent
Q7	94.1	4.5	0.3	0	0	4.894	Excellent

Itemized responses given to the suggestions of Alumni

Suggestion: Practical sessions have to be improved

Action Taken: Evaluated curriculum and experiment design to improve practical sessions and framed R-22 curriculum. Facilitated faculty development and provided updated equipment and resources. Implemented active learning strategies and established continuous assessment and feedback mechanisms to enhance student engagement and learning outcomes.

Suggestion: Need some improvements in curriculum like coding part should be there, Bioinformatics should also be included in the syllabus.

Action Taken: Bioinformatics is placed as a core course in R-22 and curriculum is entirely re-framed to develop students in practical skills of the concept and so to be a resource for industrial needs.

Action taken based on the suggestions from Faculty:

1. The Course Contents of Biotechnology Curriculum are in tune with the Program Outcomes.
2. The Course Contents along with the laboratory skills will enhance biomedical and Core competencies.
3. The allocation of Credits to the respective Courses is satisfiable.
4. The Contact Hour Distribution among the various Course Components (LTP) is Satisfiable
5. Electives will enable the passion to learn new technologies in emerging areas of Biotechnology.
6. The Curriculum provides an opportunity towards Self learning to realize the expectations.
7. The Composition of Basic Sciences, Engineering, Humanities and Management Courses in the curriculum is satisfiable?

8. The number of theoretical courses amalgamated with laboratory sessions is sufficient to improve the Genetic Engineering and Bioprocess technical skills of students.
9. The integration of Minor Project with Theory Courses will improve the technical competency and leadership skills among the students.

Analysis of Overall Feedback given by the Faculty on R19 & R21

Parameters	Strongly Agree	Agree	Moderate	Disagree	Strongly Disagree	Avg. Rating	Grade
Q1	86.4	13.6	0	0	0	4.864	Excellent
Q2	81.8	18.2	0	0	0	4.818	Excellent
Q3	81.8	18.2	0	0	0	4.818	Excellent
Q4	95.5	4.5	0	0	0	4.955	Excellent
Q5	81.8	18.2	0	0	0	4.818	Excellent
Q6	77.3	22.7	0	0	0	4.773	Excellent
Q7	81.8	18.2	0	0	0	4.818	Excellent
Q8	86.4	13.6	0	0	0	4.864	Excellent
Q9	81.8	18.2	0	0	0	4.818	Excellent

Itemized responses given to the suggestions of Faculty

Suggestion: Add activity-based exercises to enhance student engagement and practical learning.

Action Taken: The curriculum has been updated to include module-based syllabi with practical components aligned with lectures.

Suggestion: Increase the practice orientation to strengthen students' skills and application of knowledge.

Action Taken: In module based syllabus of R22 curriculum all practices components are interlinked to core contents and also emphasized to cover all the concepts.

Suggestion: Include practical components in Python programming, machine learning, drug design, and AI-based subjects in the upcoming curriculum.

Action Taken: Courses in Python programming, machine learning, drug design, AI, and other advanced and industry-relevant subjects have been included in R22 to provide comprehensive education.

Action taken based on the suggestions from Employers:

1. The Course Contents of Biotechnology Curriculum are in tune with the Program Outcomes.
2. The relevance of the Course Contents is applicable with the Biotech, Biologics and Pharma Industry.

3. The Professional Electives and Open Electives offered to students are in-line with the technology advancements in the biotech related firms.
4. Applicability of the tools and technologies described in the curriculum will be enough to practice in Industry.
5. Laboratory skills and theoretical concepts acquired by the students through the course contents will enable them to be placed in MNC.

Analysis of Overall Feedback given by the Employers on R19

Parameters	Strongly Agree	Agree	Moderate	Disagree	Strongly Disagree	Avg. Rating	Grade
Q1	80	13.3	0	0	0	4.532	Excellent
Q2	80	13.3	0	0	0	4.532	Excellent
Q3	80	13.3	0	0	0	4.532	Excellent
Q4	73.3	20	0	0	0	4.465	Excellent
Q5	66.7	26.7	0	0	0	4.403	Excellent

Itemized responses given to the suggestions of Employers

Suggestion: More emphasis should be given to the courses related to industry.

Action Taken: Increased emphasis has been placed on industry-related courses within the Biotechnology curriculum to provide students with practical knowledge and skills demanded by the industry. Collaboration with industry experts and professionals has been established to incorporate real-world case studies and examples.

Suggestion: Need of more weightage to interdisciplinary knowledge

Action Taken: Good number of department of elective courses in diversified fields were introduced in R22 curriculum to promote breadth domain knowledge. Further, more number of baskets of minor open electives were also introduced to promote interdisciplinary knowledge.

Suggestion: Introduce the components like Vaccines, community health and Vector borne diseases in syllabus

Action Taken: New courses namely Vaccinology, Health Informatics, and Health Economics were introduced in R22 curriculum.


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