



VIGNAN'S

Foundation for Science, Technology & Research

(Deemed to be University)

-Estd. u/s 3 of UGC Act 1956

DEPARTMENT OF BIOTECHNOLOGY

Minutes of CDMC Meeting

19-04-2021

The following members of Curriculum Design and Monitoring Committee for B.Tech. Biotechnology programme met on 19-04-2021 at ASF04, 'U' block, of VFSTR.

S.No.	Member	Designation	Signature
1	Dr.S.Krupanidhi Professor & Head	Chairman	
2	Dr.D.John Babu	Member	
3	Dr. M. Indira	Member	
4	Mr. A. Venkata Narayana	Member	
5	Dr. N. Jalaja	Member	

Agenda of the meeting

1. Analysis of the feedback collected from various stakeholders such as Alumni, Employers, Faculty and Students during the academic year 2020-21
2. Any point with the permission of the Chair.

The following are the important points of analysis obtained from various stakeholders:

1. It is required to introduce more number of courses related to computer sciences to improve programming skills in view of increasing demand for IT professionals in the market.
2. Need of inclusion of courses on emerging areas such as machine learning applications in biotechnology.
3. Introduce courses which make familiar with students on advanced research areas in the field of Biotechnology.
4. Professional electives have to be strengthened by floating more courses in emerging technologies.
5. Necessary steps have to be taken to provide more practical sessions to students to understand the concept clearly.
6. A course on bioethics and intellectual property rights has to be introduced.

7. Project oriented learning will give an opportunity to students to improve technical skills.
8. Introduce courses which make familiar with students on advanced research areas in the field of Biotechnology.
9. It is better to provide option for students learning their choice of interested courses through online e-learning digital platforms.

Detailed feedback analysis report is enclosed as Annexure-I

The outcomes of the meeting will be placed before the BoS for further discussion and recommendations.


Chairman, CDMC



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Annexure 1

Feedback has been received from students on the following nine parameters:

- Q1. The Course Contents of Biotechnology Curriculum are in tune with the Program Outcomes.
- Q2. The Biotechnology Course Contents are designed to enrich laboratory Skills and Core competencies.
- Q3. The Courses placed in the Biotechnology curriculum serve the needs of both advanced and slow learners.
- Q4. Contact Hour Distribution among the various Course Components (LTP) is Satisfiable.
- Q5. The Electives offered will enrich the passion to learn new technologies in emerging areas.
- Q6. The Curriculum provides an opportunity towards Self learning to realize the expectations.
- Q7. The Composition of Basic Sciences, Engineering, Humanities and Management Courses in the curriculum is a right mix and satisfiable.
- Q8. Number of Laboratory sessions Integrated with Theory Courses in Biotechnology have been sufficient to improve the technical skills.
- Q9. 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.

The categorization of rating is as follows: Strongly Agree (5), Agree (4), Moderate (3), Disagree (2) and Strongly Disagree (1).

Feedback Analysis is carried based on Average Satisfaction Rating. Rating categorization is carried based on Excellent (≥ 4); Very Good (≥ 3.5 & < 4); Good (≥ 3 & < 3.5); Moderate (> 2 & < 3) and Unsatisfactory (< 2)

Feedback from Students 2020-21 (Academic Year) - UG – B. Tech (BT)

The results derived in terms of percentage of students with consensus views, average score, and ratings are presented in Table 1.

Table 1: Analysis of feedback from students 2020 – 21

	Strongly Agree	Agree	Moderate	Disagree	Strongly Disagree	Avg. Rating	Grade
Q1	66.2	29	3.3	0.9	0.7	4.594	Excellent
Q2	63.7	30.5	4	0.9	0.9	4.552	Excellent
Q3	63.9	32.1	2.2	0.7	1.1	4.57	Excellent
Q4	69.9	27.2	1.8	0.7	0.5	4.655	Excellent
Q5	65.3	30.5	2.9	0.4	0.9	4.589	Excellent
Q6	73.5	23.5	1.8	0.4	0.9	4.686	Excellent
Q7	73	24.3	1.8	0.7	0.2	4.692	Excellent
Q8	71.9	24.6	1.3	0.7	1.5	4.647	Excellent
Q9	78.1	19.7	1.1	0.4	0.7	4.741	Excellent

The highest score of 4.741 was given to the parameter namely “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” followed by the parameter namely “The Composition of Basic Sciences, Engineering, Humanities and Management Courses in the curriculum is a right mix and satisfiable” with a score of 4.692 and both had been rated as Excellent.

It is clearly visible from the Table 1 that the parameters viz., “The Curriculum provides an opportunity towards Self learning to realize the expectations” and “Contact Hour Distribution among the various Course Components (LTP) is Satisfiable” also obtained good scores 4.686 and 4.655 respectively and has been rated as Excellent.

The parameters namely “Number of Laboratory session Integrated with Theory Courses in Biotechnology have been sufficient to improve the technical skills” and “The Course Contents of Biotechnology Curriculum are in tune with the Program Outcomes”. shown the scores of 4.647

and 4.594 respectively and had been rated as Excellent, which clearly reflects the benefit towards the student expectations.

Average scores of 4.589, 4.57 and 4.552 were obtained for the parameters namely "The Electives offered will enrich the passion to learn new technologies in emerging areas".

"The Courses placed in the Biotechnology curriculum serve the needs of both advanced and slow learners" and "The Biotechnology Course Contents are designed to enrich laboratory Skills and Core competencies" respectively. These three parameters were also rated as Excellent.

Time to time meetings were conducted at the department level to leverage new and advanced techniques to combat the learning difficulties of students. The feedback analysis reveals that laboratory sessions help to improve the student's technical skills and the courses placed in the curriculum supports both the advanced learners as well as slow learners.

Feedback has been received from the employer on the following five parameters:

Q1. The Course Contents of Biotechnology Curriculum are in tune with the Program Outcomes.

Q2. The relevance of the Course Contents is applicable with the Biotech, Biologics and Pharma Industry.

Q3. The Professional Electives and Open Electives offered to students are in-line with the technology advancements in the biotech related firms.

Q4. Applicability of the tools and technologies described in the curriculum will be enough to practice in Industry.

Q5. Laboratory skills and theoretical concepts acquired by the students through the course contents will enable them to be placed in MNC.

The categorization of rating is as follows: Strongly Agree (5), Agree (4), Moderate (3), Disagree (2) and Strongly Disagree (1).

Feedback Analysis is carried based on Average Satisfaction Rating. Rating categorization is carried based on Excellent (≥ 4); Very Good (≥ 3.5 & < 4); Good (≥ 3 & < 3.5); Moderate (> 2 & < 3) and Unsatisfactory (< 2)

Feedback from Employers 2020-21 (Academic Year) - UG – B. Tech (BT)

The results derived in terms of percentage of employer with consensus views, average score, and ratings are presented in Table 2.

Table 2: Analysis of feedback from employers 2020 – 21

	Strongly Agree	Agree	Moderate	Disagree	Strongly Disagree	Avg. Rating	Grade
Q1	100	0	0	0	0	5	Excellent
Q2	100	0	0	0	0	5	Excellent
Q3	90.9	9.1	0	0	0	4.909	Excellent
Q4	72.7	27.3	0	0	0	4.727	Excellent
Q5	100	0	0	0	0	5	Excellent

The highest score of 5 was given to the parameters namely “The Course Contents of Biotechnology Curriculum are in tune with the Program Outcomes”, “The relevance of the Course Contents is applicable with the Biotech, Biologics and Pharma Industry” and “Laboratory skills and theoretical concepts acquired by the students through the course contents will enable them to be placed in MNC” and all are rated as Excellent.

The parameters namely “The Professional Electives and Open Electives offered to students are in-line with the technology advancements in the biotech related firms” and “Applicability of the tools and technologies described in the curriculum will be enough to practice in Industry” also obtained good scores of 4.909 and 4.727 and rated as Excellent.

Feedback has been received from the faculty on the following nine parameters:

- Q1. The Course Contents of Biotechnology Curriculum are in tune with the Program Outcomes.
- Q2. The Course Contents along with the laboratory skills will enhance biomedical and Core competencies.
- Q3. The allocation of Credits to the respective Courses is satisfiable.
- Q4. The Contact Hour Distribution among the various Course Components (LTP) is satisfiable.
- Q5. Electives will enable the passion to learn new technologies in emerging areas of Biotechnology.

Q6. The Curriculum provides an opportunity towards Self learning to realize the expectations.

Q7. The Composition of Basic Sciences, Engineering, Humanities and Management Courses in the curriculum is satisfiable?

Q8. The number of theoretical courses amalgamated with laboratory sessions is sufficient to improve the Genetic Engineering and Bioprocess technical skills of students.

Q9. The integration of Minor Project with Theory Courses will improve the technical competency and leadership skills among the students.

The categorization of rating is as follows: Strongly Agree (5), Agree (4), Moderate (3), Disagree (2) and Strongly Disagree (1).

Feedback Analysis is carried based on Average Satisfaction Rating. Rating categorization is carried based on Excellent (≥ 4); Very Good (≥ 3.5 & < 4); Good (≥ 3 & < 3.5); Moderate (> 2 & < 3) and Unsatisfactory (< 2)

Feedback from Faculty 2020-21 (Academic Year) - UG – B. Tech (BT)

The results derived in terms of percentage of faculty with consensus views, average score, and ratings are presented in Table 3.

Table 3: Analysis of feedback from faculty 2020 – 21

	Strongly Agree	Agree	Moderate	Disagree	Strongly Disagree	Avg. Rating	Grade
Q1	72	28	0	0	0	4.72	Excellent
Q2	56	44	0	0	0	4.56	Excellent
Q3	80	16	0	0	4	4.68	Excellent
Q4	76	20	0	0	4	4.64	Excellent
Q5	72	28	0	0	0	4.72	Excellent
Q6	72	28	0	0	0	4.72	Excellent
Q7	76	24	0	0	0	4.76	Excellent
Q8	80	12	8	0	0	4.72	Excellent
Q9	76	24	0	0	0	4.76	Excellent

The highest score of 4.76 was given to the parameter namely “The Composition of Basic Sciences, Engineering, Humanities and Management Courses in the curriculum is satisfiable” and “The integration of Minor Project with Theory Courses will improve the technical competency and leadership skills among the students” and has been rated as Excellent. The parameters “The allocation of Credits to the respective Courses is satisfiable”, “Electives will enable the passion to learn new technologies in emerging areas of Biotechnology”, “The Course Contents of Biotechnology Curriculum are in tune with the Program Outcomes”, and “The Contact Hour Distribution among the various Course Components (LTP) is Satisfiable” obtained an average score of 4.68, 4.72, 4.72, and 4.64 and rated as Excellent.

The parameters namely “The Course Contents along with the laboratory skills will enhance biomedical and Core competencies” and “The number of theoretical courses amalgamated with laboratory sessions is sufficient to improve the Genetic Engineering and Bioprocess technical skills of students” obtained average scores of 4.56 and 4.72 respectively and rated as Excellent and the parameter “The Curriculum provides an opportunity towards Self learning to realize the expectations” also obtained a good score of 4.72 and rated as Excellent.

Feedback has been received from the alumni on the following seven parameters:

- Q1. The Curriculum laid a good foundation in understanding the basic engineering concepts in Biotechnology.
- Q2. The Course Contents of Biotechnology Curriculum are in tune with the Program Outcomes.
- Q3. The Biotechnology Curriculum encompasses all the required Job Oriented Skills.
- Q4. Professional and Open Electives of Curriculum serve the technical advancements needed in the Biotech, Biologics and Pharma industry.
- Q5. The Tools and Technologies learnt during laboratory sessions will enrich the quality Control and quality assurance in Biotechnology industry.
- Q6. While comparing with your peers from other Universities, our curriculum provided technical skills.
- Q7. Current Curriculum is superior than your studied Curriculum.

The categorization of rating is as follows: Strongly Agree (5), Agree (4), Moderate (3), Disagree (2) and Strongly Disagree (1).

Feedback Analysis is carried based on Average Satisfaction Rating. Rating categorization is carried based on Excellent (≥ 4); Very Good (≥ 3.5 & < 4); Good (≥ 3 & < 3.5); Moderate (> 2 & < 3) and Unsatisfactory (< 2)

Feedback from Alumni 2020-21 (Academic Year) - UG – B. Tech (BT)

The results derived in terms of percentage of alumni with consensus views, average score, and ratings are presented in Table 4.

Table 4: Analysis of feedback from alumni 2020 – 21

	Strongly Agree	Agree	Moderate	Disagree	Strongly Disagree	Avg. Rating	Grade
Q1	70.8	20.8	8.3	0	0	4.62	Excellent
Q2	75	12.5	8.3	0	4.2	4.541	Excellent
Q3	75	20.8	4.2	0	0	4.708	Excellent
Q4	79.2	8.3	4.2	4.2	4.2	4.544	Excellent
Q5	62.5	29.2	0	4.2	4.2	4.419	Excellent
Q6	75	16.7	0	8.3	0	4.584	Excellent
Q7	79.2	12.5	4.2	4.2	0	4.67	Excellent

The highest score of 4.708 was given to the parameter namely “The Biotechnology Curriculum encompasses all the required Job Oriented Skills, obtained an average score of 4.67 and 4.62 and rated as Excellent. The parameters “Current Curriculum is superior than your studied Curriculum” “The Curriculum laid a good foundation in understanding the basic engineering concepts in Biotechnology”, and “While comparing with your peers from other Universities, our curriculum provided technical skills” “Professional and Open Electives of Curriculum serve the technical advancements needed in the Biotech, Biologics and Pharma industry, “The Course Contents of Biotechnology Curriculum are in tune with the Program Outcomes” obtained an average score of 4.584, 4.544, and 4.541 respectively and were rated as Excellent. The lowest score was obtained for “The Tools and Technologies learnt during laboratory sessions will enrich the quality Control and quality assurance in Biotechnology industry” with a score of 4.419 and rated as Excellent.