

## ACTION TAKEN ON STAKEHOLDERS FEEDBACKS

2021-22

### INDEX

S.No	Name of the Topic	Pg No
1	Action taken on Students Feedback on curriculum	2-9
2	Action taken on Faculty Feedback on curriculum	10-11
3	Action taken on Alumni Feedback on curriculum	12-15
4	Action taken on Employers Feedback on curriculum	16-25
5	Action taken on Parents Feedback on curriculum	26-28



**Chaitanya Bharathi Institute of Technology(A)  
Biotechnology department**

**Action Plan on Students feedback**

Based on the student feedback reports and analysis from 21-22 academic year, the following areas are the need for improvement in upcoming years.

SNo	Question	Percentage of Average of Responses	Target Fixed by the department	Action plan to improve the response/performance	Target to be achieved for next academic year
1	How well do you think your education in CBIT prepared/is preparing you for your career?	78.4	75%	Biotech dept is continuously striving hard to impart the career oriented skills to students by building strong fundamentals in basic subjects. Dept also offers placement training activities	80%
2	How was your learning experience in the department?	80.1	80%	Biotech dept is imparting experiential learning , participative learning and problem solving methodologies to students by Industrial internships, Industrial visits, community engagement projects, regular labs (learning by doing with open ended and structured expts), 8 <sup>th</sup> sem projects, tutorials , group assignments, project expos, ideathons, workshops	85%
3	How would you rate the	73.9	75%	College authorities are	75%

	facilities (Class Rooms, Seminar Hall(s)Labs, Equipment/Software(s), Computing Facilities, Library and Internet) of the college?			taking necessary steps to improve the facilities at biotech dept	
4	How would you rate the faculty performance (Availability, Teaching Process and Quality of Instruction, Professionalism and Mentoring)?	84.2	80%	Faculty of biotech dept continuously update themselves in giving the latest technologies and applications to students. Faculty interact with students on a regular basis and they are accessible to students all times for whatever help required. Mentors are allocated who continuously monitor the progress of their mentees.	80%
5	How would you rate the curriculum (Courses offered, Syllabi and Opportunity for Creativity /Intellectual Stimulation)?	80.8	75%	The dept took enough care in designing the R18 and R20 syllabus with more emphasis on cutting edge technologies which are included as electives.The department is involving industry personnel, alumni in framing the curriculum.	
6	How would you rate the student services (Career Guidance and Placements, Transportation Canteen, Hostel, Admin Offices and AEC) offered by the institution?	73.9	70%	Career guidance programs by alumni, industry were arranged on a regular basis for the benefit of students. College authorities are taking all measures to continuously improve other facilities at central level for the students	
7	How would you rate the internship guidance offered to	72.9	75%	Internship mentors were allocated to every student. Internship	

	you			guidance is given for students for identifying relevant industries and approaching relevant people by maintaining a database of companies.	
8	How would you rate the Honors /Minor engineering degree guidance offered to you	78.4	75%	For the first time in college Honors and Minor engg program were introduced, and Biotech dept successfully guided and mentored students who are interested in pursuing these additional degree courses. 12 students of Biotech have secured honors degree and 01 student secured minor engg degree	80%
9	How would you rate the career guidance offered to you by the department (applicable from 6th sem onwards)	76.5	75%	Gainful engagements have increased when compared to last academic year. Inhouse placement training programs by core companies are being offered to students for increasing the placement percentage	75%
10	How would you rate the curriculum offered to you when compared with other universities	79.67	75%	Biotech dept is taking into consideration the curriculum of prestigious universities while framing the curriculum. Also skills in demand analysis is being done for understanding the gaps in the curriculum so as to bridge the same in every curriculum update.	80%

**Biotech students opined that**

Animal Biotechnology would be better as a equivalent course instead of an elective which is done in R20 syllabus . ABT subject is made mandatory and practical course also is introduced.

Sd/  
*[Signature]*  
I/C Head

**BT dept**

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### Action Plan for the Biotechnology department

Based on the Program exit survey reports and analysis from 2018-2022 batch students the following areas are the need for improvement in upcoming years.

Item	Target Fixed by the department	Target Achieved	Action plan to improve the response/performance	Target to be achieved for next academic year
Placement/employment of students	Gainful engagements(placements and admission to higher studies) together 50%	58%achieved	Gainful engagements have increased when compared to last academic year. Inhouse placement training programs by core companies are being offered to students for increasing the placement percentage	80%
Satisfaction level in associating with CBIT	70%	68.5% achieved	We will try to make CBIT a better place for learning and all round development by imparting more practical education through internships and encouraging students towards R&D , startups etc	70%

Curriculum/Syllabus Rating	70%	71.6%	The present students have studied R16 regulations. We took enough care in designing the R18 and R20 syllabus with more emphasis on cutting edge technologies which are included as electives	70%
PO1	70%	71.8%achieved	As Biotechnology is amalgamation of BiPC and MpC students we are trying to bridge the gap effectively by imparting the basic sciences that act as fundamentals for them. More basic concepts are included in r18 and R20 syllabus for the students to be more confident in the fundamentals	73%
PO2	70%	70.2%achieved	As Biotechnology is amalgamation of BiPC and MpC students we are trying to bridge the gap effectively by imparting the basic sciences that act as fundamentals for them. More basic concepts are included in r18 and R20 syllabus for the	73%

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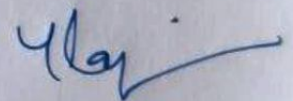
			students to be more confident in the fundamentals	
PO3	70%	71%achieved	More internships are included in R18 and R20 as per AICTE suggestions so as to build the confidence in students to handle complex problems	73%
PO4	70%	72%achieved	Students are motivated to analyze and get solutions for problems by doing research on the problem given. Open ended and structured experiments are introduced to increase the analytical capabilities of the students.	73%
PO5	70%	72%achieved	Exposure to Advanced equipment required for research and higher studies is required to have a knowldege on handling various modern equipment/tools. The dept is in the process of establishing Rand D lab from past 2 years	73%



PO 6	70%	71% achieved	Students must be encouraged to solve real time issues of society so as to bring a sense of responsibility. In this pursuit Students of the department are being encouraged to participate in various ideathons to finally emerge as a startup company	73%
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**Biotech students opined that the following facilities must be improved in the college (below 70% attainment)**

- Internet and Wi-Fi facilities(61.9%)
- Basic amenities including washrooms (65.4%)
- Canteen facilities(69%)
- Hostel facilities(69.4%)
- Training and Placement Office provided on/off campus placement opportunities (69.4%)
- Training provided for placements (69.8%)



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CHAITANYA BHARATHI INSTITUTE OF TECHNOLOGY (AUTONOMOUS), HYDERABAD-75 FACULTY  
**ACTION PLAN TAKEN ON FACULTY FEEDBACK ON CURRICULUM**

Academic Year: 2021-22

Faculty opined that following changes have to be done and action has been implemented

2021-22		
S No	Suggestion By faculty	Action Taken and Link
1	In view of COVID 19 , Microbiology syllabus needs to modified	External BoS opined that Epidemic and Pandemic basics should be introduced in Theory and same has been implemented  Link: <a href="https://cbit.ac.in/wp-content/uploads/2019/04/BIOTECH-MODEL-CURRICULUMR20-III-Sem-to-IV-Sem.pdf.pdf">https://cbit.ac.in/wp-content/uploads/2019/04/BIOTECH-MODEL-CURRICULUMR20-III-Sem-to-IV-Sem.pdf.pdf</a> (pg 6 of 52)
2	Microbiology lab syllabus has to modified slightly	External BoS members have kindly agreed to the proposal and same has been implemented  Link: <a href="https://cbit.ac.in/wp-content/uploads/2019/04/BIOTECH-MODEL-CURRICULUMR20-III-Sem-to-IV-Sem.pdf.pdf">https://cbit.ac.in/wp-content/uploads/2019/04/BIOTECH-MODEL-CURRICULUMR20-III-Sem-to-IV-Sem.pdf.pdf</a> (pg 20 of 52)
3	Chemical and Biochemical Thermodynamics title has to be modified	External BoS members have kindly agreed to the proposal and title has been changed to Thermodynamics For Biotechnologists  Link: <a href="https://cbit.ac.in/wp-content/uploads/2019/04/BIOTECH-MODEL-CURRICULUMR20-III-Sem-to-IV-Sem.pdf.pdf">https://cbit.ac.in/wp-content/uploads/2019/04/BIOTECH-MODEL-CURRICULUMR20-III-Sem-to-IV-Sem.pdf.pdf</a> (pg 8 of 52)
4	Prokaryotic cell cycle has to be introduced in Cell and Molecular Biology subject	External BoS opined that it is an important topic and same has been included in the syllabus  Link: <a href="https://cbit.ac.in/wp-content/uploads/2019/04/BIOTECH-MODEL-CURRICULUMR20-III-Sem-to-IV-Sem.pdf.pdf">https://cbit.ac.in/wp-content/uploads/2019/04/BIOTECH-MODEL-CURRICULUMR20-III-Sem-to-IV-Sem.pdf.pdf</a> (pg 10 of 52)
5	Concepts related to Sterilization topics have to be included in Bioprocess Engineering	Concepts related to Sterilization and related kinetics are important for a bioprocess engineer and external BoS mebers have agreed for implementing the same  Link: <a href="https://cbit.ac.in/wp-content/uploads/2019/04/BIOTECH-MODEL-CURRICULUMR20-III-Sem-to-IV-Sem.pdf.pdf">https://cbit.ac.in/wp-content/uploads/2019/04/BIOTECH-MODEL-CURRICULUMR20-III-Sem-to-IV-Sem.pdf.pdf</a> (pg 26,27 of 52)

6	Bioethics has to be included in Intellectual property Rights subject	With the increasing market needs, external Bos Agreed that Bioethics has to be included as unit V and title of the subject has to be changed to Intellectual Property Rights and Bioethics <a href="https://cbit.ac.in/wp-content/uploads/2019/04/BIOTECH-MODEL-CURRICULUMR20-III-Sem-to-IV-Sem.pdf.pdf">https://cbit.ac.in/wp-content/uploads/2019/04/BIOTECH-MODEL-CURRICULUMR20-III-Sem-to-IV-Sem.pdf.pdf</a> (pg 36 of 52)
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Chaitanya Bharathi Institute of Technology(A)  
Biotechnology department

Action Plan on Alumni feedback

Based on the Alumni feedback reports and analysis from 21-22 academic year, the following areas are the need for improvement in upcoming years.

SNo	Question	Percentage of Average of Responses	Target Fixed by the department	Action plan to improve the response/performance	Target to be achieved for next academic year in %
1	How effectively is the knowledge acquired in the UG program at CBIT is helping you in your career?	72	75%	The dept took enough care in designing the R18 and R20 syllabus with more emphasis on cutting edge technologies which are included as electives. The department is involving industry personnel, alumni in framing the curriculum.	75%
2	How effectively are you utilizing the acquired problem solving & design/development skills in your professional life?	70.66	75%	Biotech dept is imparting experiential learning , participative learning and problem solving methodologies to students by Industrial internships, Industrial visits, community engagement projects, regular labs (learning by doing with open ended and structured expts), 8 <sup>th</sup> sem projects, tutorials , group	75

				assignments, project expos, ideathons, workshops	
3	How useful is the project work/research-based approach you learnt in CBIT helping you in providing valid conclusions in your work?	69.33	75%	Students are monitored and guided regularly during project reviews to ensure that students come out with project outcomes in point of publications, patents, technology transfer etc.	75%
4	How good are you at using modern engineering and Software tools in your work environment?	70.66	75%	Students are encouraged towards lifelong learning by expansion, innovation, and integration.	75%
5	As a professional engineer, how actively are you working towards societal and environmental benefits?	70.66	75%	Students were encouraged to observe outside world and understand the real time problems faced by the society. Faculty also cite the examples while teaching relevant topics so that students can appreciate the importance of being a biotech engineer and their role in society	80%
6	How well has CBIT prepared you to be a life-long learner by following professional ethics/values?	74.66	70%	Students were imparted education in human values, ethics, Indian constitution as part of the curriculum to make them as responsible human beings	75%
7	How well do you think that your interaction with the faculty/guests/peers/juniors in CBIT helped you to communicate in your work environment?	74.66	75%	Students are given training as part of their academics to understand engineering solutions through open ended, structured experiments and internships, active participation in hackathons, project	80%

				expos.	
8	To what extent has your involvement in the events organized in CBIT helped you to enhance your self-confidence, team work, leadership and managerial skills?	76	75%	Students are given training in English communication skills, technical writing skills and management subjects for gaining self confidence	
9	Can you claim yourself as a well trained graduates meeting the requirements of biotechnology industries, academic and research Institutions	77.33	75%	Biotech dept is imparting experiential learning , participative learning and problem solving methodologies to students by Industrial internships, Industrial visits, community engagement projects, regular labs (learning by doing with open ended and structured expts), 8 <sup>th</sup> sem projects, tutorials , group assignments, project expos, ideathons, workshops	80%
10	Are you able to identify needs and problems of the society and design biotechnology driven solutions	76	75%	Students are encouraged to take up projects related to society. They are motivated to observe outside world and understand the real time problems faced by the society . Faculty also cite the examples while teaching relevant topics so that students can appreciate the importance of being a biotech engineer and their role in society.	80%
11	Usefulness of our co-curricular/ extra-curricular activities at CBIT	72	75	BBCC club has become active and students themselves lead the club by	75

				undertaking many programs like quizzes, GDs, Guest lectures etc	
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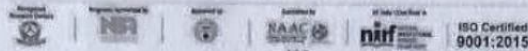
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COMMITTED TO  
RESEARCH,  
INNOVATION AND  
EDUCATION

**43**  
years

**Department of Biotechnology**

2021-22

**Feedback of Employers and Industry on R20 Curriculum**

(Responses received till Feb 16<sup>th</sup> 2022)

Semester in which changes are proposed	Details	Suggested by	Remarks after discussion with Department faculty
V sem	Most of the students are of Bi.PC and MPC background and not having much interested in Mathematics and formulae. So we have to adopt towards biochemical and technology! Instead of more of chemical technology. So we would like to add only basic chemical engineering and apply towards bioengineering.	<b>MULLAPUDI VENKATA SUBRAHMANYA GOPALARAO</b> (Technical freelancer for processing industries in petrochemical, polymer and logistics/ supply chain.)	As new biotech products move out of the lab into production ,the chemical engg subjects help students to handle production related issues.
	Fermentation technology to be included	<b>D Sai Harshitha</b> Technical trainee at Dr.Reddy's Laboratories	Already included in IV sem as Bioprocess Engineering
	Genomics/proteomics to be included	<b>Kata Krishna Prasad</b> Alumni-2019 passed out	Already included as Professional Elective -V in VII sem
	DBMS + SQL, and Data Structures & Algorithms (DSA) to be included	<b>Poduri Swaraj Neeharika</b> Senior Consultant - Package Implementation at LTI	Basics of Data structures included as Open Elective-III in VIII sem. OOPs using phython theory and lab are included in the program in III sem DBMS,SQL can be learnt as part of minor engineering for those



			who are interested to take up software jobs
VI Sem	Mass transfer application , not engineering, reactions and usage in biotechnology.	<b>MULLAPUDI VENKATA SUBRAHMANYA GOPALARAO</b> (Technical freelancer for processing industries in petrochemical, polymer and logistics/ supply chain.)	Current syllabus helps students to understand different unit operations which are related to production of new products, however Syllabus will be slightly modified such that applications are also studied by the students
	IAPH shouldn't be elective. It should be a compulsory subject	<b>Kata Krishna Prasad</b> Alumni-2019 passed out	As we need to accommodate other compulsory interdisciplinary subjects as per AICTE, IAPH has to be offered as elective subject for students who are interested in Human physiology
VII sem	Options are to be made for MPC background stud and giver options towards engineering development.	<b>MULLAPUDI VENKATA SUBRAHMANYA GOPALARAO</b> (Technical freelancer for processing industries in petrochemical, polymer and logistics/ supply chain.)	Engineering Exploration will help in this regard
VIII sem	Technical writing skills; Research methodologies to be included	<b>D Sai Harshitha</b> Technical trainee at Dr.Reddy's Laboratories	These can be included in open electives list
	Give skills towards industry requirements and mould towards plant operations and getting industry's needs.	<b>MULLAPUDI VENKATA SUBRAHMANYA GOPALARAO</b> (Technical freelancer for processing industries in petrochemical, polymer and logistics/ supply chain.)	Internships will help in this regard. Also training in the form of finishing school might help students for getting industry ready.

  
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Department of Biotechnology

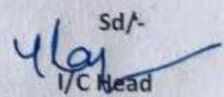
Summary of Feedback of Stakeholders on R20 Scheme (Responses received through email till 12<sup>th</sup> April 2022)

Comments	Suggested by	Remarks after discussion with Department faculty
<p>The course curriculum has been structured well</p> <p><b>"Pharmacovigilance and epidemiology" preferably as a professional or open elective in the third or fourth semester.</b> It would provide a basic understanding of pharmacovigilance operations, principles, global safety standards guidelines and regulations related to pharmacovigilance. Overall, it will provide a platform for entry into the pharmaceutical industry.</p>	<p>Dr. Sandhya Kumaraswamy, Associate Director, Biologics Development Centre, Dr. Reddy's Laboratories Ltd</p>	<p>The suggested topics have been included in Pharmaceutical biotechnology or GMP and GLP syllabus as per the feedback given by the expert</p>
<p>I went over the course material and found it to be completely satisfactory. When I worked as a consultant for a company, they were searching for students who had a strong understanding of protein engineering.</p> <p><b>If possible, include one unit of protein engineering in that you can include antibody engineering/crispercas9/insulin analog.</b></p>	<p>Dr. Sanjit Kumar , Assistant Professor Sr. 6th Floor, Technology Tower, Centre for Bioseparation Technology (CBST), VIT, Vellore-632014</p>	<p>The suggested topics have been included <i>Included in Biosimilar Technology, Genome editing</i> as per the feedback given by the expert</p>
<p>The syllabus looks good and comprehensive. I would like to suggest few additions, if possible.</p> <p><b>1. Bioentrepreneurship</b> <b>2. Chromatography / separation techniques</b> <b>3. Fermentation technology</b></p>	<p>Dr. D. Benet Bosco Dhas, PhD Chief Executive Officer, 30M Genomics Private Limited, Room No.3, Aspire BioNEST, School of Lifesciences, University of Hyderabad, Gachibowli, Hyderabad - 500046.</p>	<ul style="list-style-type: none"> <li>• Startups related subject is already included in electives</li> <li>• Chromatography already included in IMA or DSP</li> </ul>

<p><b>4. Advanced Genomics (application oriented)</b></p>		<ul style="list-style-type: none"> <li>• Fermentation technology in the name of BPE</li> </ul>
<ol style="list-style-type: none"> <li>1. Probability and biostatistics in biotechnology, as well as intellectual property rights in biotechnology, can be included in their curriculum.</li> <li>2. Engineering, economics, and accounting can be excluded, and subjects such as nanobiotechnology, pharmaceutical biotechnology, can be made core subjects rather than electives.</li> <li>3. Physics, CAD &amp; Drafting, Chemistry, Chemistry lab, Chemistry, process engineering principles, and basic electrical engineering, in my opinion, are not required for biotechnology graduates. Instead, instrumentation and biotechniques, as well as computer-aided design (CAD) for drug designing, can be taught with practical applications</li> </ol>	<p>Dr. S. Rex Jeya Rajkumar, NRC Research Associate, Wound Infection Department, Walter Reed Army Institute of Research, Silver Spring, Maryland-20910, USA.</p>	<ol style="list-style-type: none"> <li>4. Probability and biostatistics and intellectual property rights in biotechnology, are already be included in the curriculum.</li> </ol> <ul style="list-style-type: none"> <li>• As per the college structure and other experts opinion we cannot remove EEA from core</li> <li>• As per the college structure and other experts opinion Physics, CAD &amp; Drafting, Chemistry, etc cannot be removed from the curriculum, however instrumentation and biotechniques, as well as computer-aided design (CAD) for drug designing are included in curriculum already</li> </ul>
<ol style="list-style-type: none"> <li>1. The syllabus is comprehensive and upgraded cohesively with emerging topics.</li> <li>2. Bioinformatics can be shifted to either 4th or 5th semester</li> <li>3. R Language seems to be not included</li> <li>4. Computational biology is kept as electives. It might be of much helpful</li> </ol>	<p>Dr S Venkata Mohan FNAE, FBRS, FTAS, FAPAS, FIE, IFIBiop Senior Principal Scientist Professor, Academy of Scientific &amp; Innovative Research (AcSIR) Bioengineering and Environmental Sciences Lab, Department of Energy and Environmental Engineering,</p>	<ul style="list-style-type: none"> <li>• Plant and Animal Biotechnology are included as core subjects in the curriculum</li> <li>• Open electives are required for students for gaining overall</li> </ul>

<p>to students if included as a regular course.</p> <p>5. Similarly, Plant and Animal biotechnology can also be shifted to the regular courses</p> <p>6. Open Electives III and IV can be considered to replace with some biotechnology related subjects</p> <p>7. Biomedical engineering can be stressed little more</p> <p>8. If possible, please included Clinical Applications of Biotechnology as an elective course</p>	<p>CSIR-Indian Institute of Chemical Technology (CSIR-IICT) Hyderabad-500 007, INDIA; Ph: +91-40-27191765 (O)</p>	<p>engineering knowledge and current trends as per other experts opinion</p> <ul style="list-style-type: none"> <li>• Clinical trails and regulatory affairs is included in curriculum already</li> </ul>
<p>I went through the syllabus and subject list. It is already perfect and I don't find anything missing. However, if I may, I will suggest to think upon following points to make the students industry ready:</p> <ol style="list-style-type: none"> <li>1. <b>Regular guest lectures</b> from industry experts in respective subject may be organized to expose the students to the industrial world. I will recommend, at least <b>1 guest lecture for each subject in every semester</b>. This may be included as a part of internal evaluation. The topic of guest lecture may be chosen based on the level of students (<i>Sem I to Sem VIII</i>)</li> <li>2. There are multiple <b>opportunities of internships</b> (<i>with and without scholarships in India and abroad</i>) after Sem IV but most of the students aren't aware of these opportunities because of which they don't get the chance to expose themselves to the biotechnology application world (<i>be it industry or academic research</i>). I will recommend to organize a</li> </ol>	<p>Dr Alok Prakash, R and D and Innovation Manager, Rouquette China</p>	<ul style="list-style-type: none"> <li>• The suggestions will be taken into consideration for arranging guest lectures. Students are already into Internships and regular guidance is being provided.</li> </ul>

<p>session in Sem III and IV where you can invite some of <b>past scholars to share their journey with the students</b>. There are also several agencies who can share information about internship opportunities available for the students. If you would like, I can help you further to get in touch with these agencies.</p> <p>3. In Sem VI, I see you have a <b>"Mini Project"</b>. I suggest to have an <b>industrial coach</b> for the mini projects. The industrial coach may be viewed as a consultant to help the students understand the practical benefit and real-life application of the project they are working on.</p> <p>4. Also, in Sem VI, you have a course of <b>"Employability skills"</b>. Again, I will suggest to have some of the <b>industrial experts</b> from several field to coach the students to develop employability skills.</p>		
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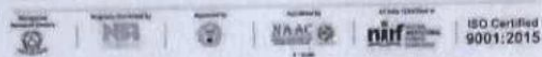
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COMMITTED TO  
RESEARCH,  
INNOVATION AND  
EDUCATION

**43**  
years

**Department of Biotechnology**

**Summary of Feedback of Employers and Industry persons on R20 Curriculum**

2021-22

(Responses received through email till 12<sup>th</sup> April 2022)

Comments	Suggested by	Remarks after discussion with Department faculty
<p>The course curriculum has been structured well</p> <p><b><i>"Pharmacovigilance and epidemiology" preferably as a professional or open elective in the third or fourth semester.</i></b> It would provide a basic understanding of pharmacovigilance operations, principles, global safety standards guidelines and regulations related to pharmacovigilance. Overall, it will provide a platform for entry into the pharmaceutical industry.</p>	<p>Dr. Sandhya Kumaraswamy, Associate Director, Biologics Development Centre, Dr. Reddy's Laboratories Ltd</p>	<p>The suggested topics have been included in Pharmaceutical biotechnology or GMP and GLP syllabus as per the feedback given by the expert</p>
<p>I went over the course material and found it to be completely satisfactory. When I worked as a consultant for a company, they were searching for students who had a strong understanding of protein engineering.</p> <p><b><i>If possible, include one unit of protein engineering in that you can include antibody engineering/crispercas9/insulin analog.</i></b></p>	<p>Dr. Sanjit Kumar , Assistant Professor Sr. 6th Floor, Technology Tower, Centre for Bioseparation Technology (CBST), VIT, Vellore-632014</p>	<p>The suggested topics have been included <i>Included in Biosimilar Technology, Genome editing</i> as per the feedback given by the expert</p>

<p>The syllabus looks good and comprehensive. I would like to suggest few additions, if possible.</p> <ol style="list-style-type: none"> <li>1. <b>Bioentrepreneurship</b></li> <li>2. <b>Chromatography / separation techniques</b></li> <li>3. <b>Fermentation technology</b></li> <li>4. <b>Advanced Genomics (application oriented)</b></li> </ol>	<p>Dr. D. Benet Bosco Dhas, PhD Chief Executive Officer, 30M Genomics Private Limited, Room No.3, Aspire BioNEST, School of Lifesciences, University of Hyderabad, Gachibowli, Hyderabad - 500046.</p>	<ul style="list-style-type: none"> <li>• Startups related subject is already included in electives</li> <li>• Chromatography already included in IMA or DSP</li> <li>• Fermentation technology in the name of BPE</li> </ul>
<ol style="list-style-type: none"> <li>1. Probability and biostatistics in biotechnology, as well as intellectual property rights in biotechnology, can be included in their curriculum.</li> <li>2. Engineering, economics, and accounting can be excluded, and subjects such as nanobiotechnology, pharmaceutical biotechnology, can be made core subjects rather than electives.</li> <li>3. Physics, CAD &amp; Drafting, Chemistry, Chemistry lab, Chemistry, process engineering principles, and basic electrical engineering, in my opinion, are not required for biotechnology graduates. Instead, instrumentation and biotechniques, as well as computer-aided design (CAD) for drug designing, can be taught with practical applications</li> </ol>	<p>Dr. S. Rex Jeya Rajkumar, NRC Research Associate, Wound Infection Department, Walter Reed Army Institute of Research, Silver Spring, Maryland-20910, USA.</p>	<ol style="list-style-type: none"> <li>4. Probability and biostatistics and intellectual property rights in biotechnology, are already be included in the curriculum.</li> </ol> <ul style="list-style-type: none"> <li>• As per the college structure and other experts opinion we cannot remove EEA from core</li> <li>• As per the college structure and other experts opinion Physics, CAD &amp; Drafting, Chemistry, etc cannot be removed from the curriculum, however instrumentation and biotechniques, as well as computer-aided design (CAD) for drug designing are included in curriculum already</li> </ul>

Q 3

<p>1. The syllabus is comprehensive and upgraded cohesively with emerging topics.</p> <p>2. Bioinformatics can be shifted to either 4th or 5th semester</p> <p>3. R Language seems to be not included</p> <p>4. Computational biology is kept as electives. It might be of much helpful to students if included as a regular course.</p> <p>5. Similarly, Plant and Animal biotechnology can also be shifted to the regular courses</p> <p>6. Open Electives III and IV can be considered to replace with some biotechnology related subjects</p> <p>7. Biomedical engineering can be stressed little more</p> <p>8. If possible, please included Clinical Applications of Biotechnology as an elective course</p>	<p>Dr S Venkata Mohan FNAE, FBRS, FTAS, FAPAS, FIE, IFIBiop Senior Principal Scientist Professor, Academy of Scientific &amp; Innovative Research (AcSIR) Bioengineering and Environmental Sciences Lab, Department of Energy and Environmental Engineering, CSIR-Indian Institute of Chemical Technology (CSIR-IICT) Hyderabad-500 007, INDIA; Ph: +91-40-27191765 (O)</p>	<ul style="list-style-type: none"> <li>• Plant and Animal Biotechnology are included as core subjects in the curriculum</li> <li>• Open electives are required for students for gaining overall engineering knowledge and current trends as per other experts opinion</li> <li>• Clinical trails and regulatory affairs is included in curriculum already</li> </ul>
<p>I went through the syllabus and subject list. It is already perfect and I don't find anything missing. However, if I may, I will suggest to think upon following points to make the students industry ready:</p> <ol style="list-style-type: none"> <li>1. <b>Regular guest lectures</b> from industry experts in respective subject may be organized to expose the students to the industrial world. I will recommend, at least <b>1 guest lecture for each subject in every semester</b>. This may be included as a part of internal evaluation. The topic of guest lecture may be chosen based on the level of students (<i>Sem I to Sem VIII</i>)</li> <li>2. There are <b>multiple opportunities of internships</b> (<i>with and without scholarships in India and abroad</i>) after Sem IV but most</li> </ol>	<p>Dr Alok Prakash, R and D and Innovation Manager, Rouquette China</p>	<ul style="list-style-type: none"> <li>• <b>The suggestions will be taken into consideration for arranging guest lectures. Students are already into Internships and regular guidance is being provided.</b></li> </ul>



<p>of the students aren't aware of these opportunities because of which they don't get the chance to expose themselves to the biotechnology application world (<i>be it industry or academic research</i>). I will recommend to organize a <b>session in Sem III and IV</b> where you can invite some of <b>past scholars to share their journey with the students</b>. There are also several agencies who can share information about internship opportunities available for the students. If you would like, I can help you further to get in touch with these agencies.</p> <p>3. In Sem VI, I see you have a "<b>Mini Project</b>". I suggest to have an <b>industrial coach</b> for the mini projects. The industrial coach may be viewed as a consultant to help the students understand the practical benefit and real-life application of the project they are working on.</p> <p>4. Also, in Sem VI, you have a course of "<b>Employability skills</b>". Again, I will suggest to have some of the <b>industrial experts</b> from several field to coach the students to develop employability skills.</p>		
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*Ylan*

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**Chaitanya Bharathi Institute of Technology(A)**  
**Biotechnology department**


**Action Plan on Parents feedback**

Based on the parents feedback reports and analysis from 21-22 academic year, the following areas are the need for improvement in upcoming years.

SNo	Question	Percentage of Average of Responses	Target Fixed by the department	Action plan to improve the response/performance	Target to be achieved for next academic year
1	How do you rate the role of CBIT in imparting technical knowledge and its contribution towards you ward's overall professional growth.	80.15	75%	Biotech dept is imparting experiential learning ,participative learning and problem solving methodologies to the students for professional growth	80%
2	How do you rate the Participation by your ward's in technical events/clubs (workshops and conferences).	79.07	75%	Students are constantly encouraged to participate in conferences, attend seminars workshops and interact with outside world.	80%
3	How do your rate your ward's personality development in terms of communication, managerial skills and self confidence	80.76	75%	Students are given training in English communication skills, technical writing skills and management subjects for gaining self confidence	75%
4	How do your rate your ward's Leadership and life-long learning attitude	80.76	80%	Students are encouraged towards lifelong learning by expansion, innovation, and integration.	80%
5	How do your rate your ward's Attitude towards social and	85.38	75%	Students were encouraged to observe	80%

	environmental responsibilities.			outside world and understand the real time problems faced by the society . Faculty also cite the examples while teaching relevant topics so that students can appreciate the importance of being a biotech engineer and their role in society	
6	How do you rate your ward's Participation in college club activities.	77.23	70%	BBCC club has become active and students themselves lead the club by undertaking many programs like quizzes, GDs, Guest lectures etc	75%
7	How do you rate your ward's Attitude towards finding engineering solution to a problem.	80	75%	Students are given training as part of their academics to understand engineering solutions through open ended, structured experiments and internships , active participation in hackathons, project expos.	80%
8	How do you rate your ward's enthusiasm towards using the engineering tools?	81.23	75%		
9	How do you rate your ward's How do rate your ward in terms of Human values and ethics	89.53	75%	Students were imparted education in human values, ethics , Indian constitution as part of the curriculum to make them as responsible human beings	75%
10	How do you rate your satisfaction level with respect to your ward's achievement	84.15	75%	All students are given equal opportunities to engage themselves in various academic activities.	80%
11	How do you rate Infrastructure, Technical Facilities and other services in CBIT	76.92	75	College authorities are taking all measures to continuously improve facilities at central level for the students	75

12	How do you rate Response and communication with the college authorities.	78.15	75%	Biotech dept is always accessible for any kind of information for students and parents.	75
13	How do you rate Training, internships and placement activities provided /guided to your ward by CBIT	77.23	70	Career guidance programs by alumni, industry was arranged on a regular basis for the benefit of students. College authorities are taking all measures to continuously improve other facilities at central level for the students. Internship mentors were allocated to every student. Internship guidance is given for students for identifying relevant industries and approaching relevant people by maintaining a database of companies.	75

Sd/-  
  
 I/C Head

BT dept

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