



**SETHU INSTITUTE OF TECHNOLOGY**  
**(An Autonomous Institution)**  
**Pulloor, Kariapatti – 626 115**



**DEPARTMENT OF BIOTECHNOLOGY**

**MINUTES OF BOS MEETING**

The Second Meeting of Board of Studies of B.Tech., Biotechnology program held on **19.08.2021** through Google meet platform at the Department Seminar Hall at Sethu Institute of Technology, Pulloor, Kariapatti.

**Members Present:**

S. No	Name	Designation	Status
1.	Mrs.R.Nageshwari, M.Tech., (Ph.D)	Assistant Professor & HOD (i/c)/ Department of Biotechnology	Chairman
2.	Dr.V.Adaikkalam, Ph.D.,	Associate Professor Department of Biotechnology ACT campus Anna University, Chennai – 600 025	Anna University Nominee
3.	Dr.R.A.Nazeer,Ph.D.,	Professor and Head, Department of Biotechnology SRM Institute of Science &Technology, Kattankulathur – 603203	Academic External Expert Member
4.	Dr.ML. Stephen Raj, Ph.D.,	Sr. Professor & HoD Department of Biotechnology Mepco Schlenk Engineering College, Sivakasi.	Academic External Expert Member
5.	Dr. Renjith Paulose, Ph.D.,	Chief AI Scientist Excelledia Digital Innovations Private Limited, Ernakulum, Kerala, India.	Industry Expert Member
6.	Dr.V.Theresa, Ph.D	Assistant Professor (Sr. Grade) Department of Biotechnology	Member
7.	Mrs.P.K.S.Revathy Babu, M.Tech	Assistant Professor Department of Biotechnology	Member
8.	Mr.S.Vishnuprasad, M.Tech	Assistant Professor Department of Biotechnology	Member

The Agenda for the meeting is

1. To consider and recommend the revised Department Vision, Mission, PEOs, POs and PSOs of the UG Programme.

2. To present the analysis of the Stakeholders feedback regarding curriculum and syllabi
3. To present Mapping of Curriculum and syllabi with Programme Specific Criteria
4. To present the classification of courses having focus on employability/ entrepreneurship/ skill development
5. To discuss and finalize the structure of detailed syllabus of B.Tech., Biotechnology program applicable from 2020 – 2021 admitted batch and to approve the list of Courses under Regulation 2019 for the biotechnology department and approve the suggestions for improving the R2019 curriculum structure.

The Chairman welcomed the members and presented as per the agenda given above for the Curriculum under Regulation 2019 and detailed syllabus from third to eight semesters which is to be applicable from 2020 – 2021 admitted batch under autonomous regulation for B.Tech. Biotechnology.

**1. Consider and recommend the proposed Department Vision, Mission, PEOs, POs and PSOs**

The Vision, Mission, PEOs, POs and PSOs of the B.Tech. Biotechnology Programme are discussed.

1.1 The BOS resolved to approve the Vision, Mission, PEOs, Pos and PSOs.

**2. Analysis of Stakeholders feedback regarding curriculum and syllabi.**

The stakeholders' feedback was obtained regarding curricula and syllabi in various formats and sources. The stakeholder's feedbacks and their suggestions are presented and discussed thoroughly. Based on their suggestions and following resolutions are made

2.1 Suggested to introduce a course "Nanobiotechnology" as core course. It was put forth that a course 'Fundamentals of Nanotechnology' is available as elective course.

2.2 Suggested to include 'cloning experiments' in 19UBT608 - Genetic Engineering Lab. The suggestion was well taken and modified in the revised syllabus

**3. Mapping of Curriculum and syllabi with Programme Specific Criteria**

Mapping of curriculum components with PEOs, POs and Programme Specific Criteria is presented and discussed.

3.1 The BoS resolved to approve and recommend the mapping of curriculum components with PEOs , POs and Program specific criteria

#### **4. Classification of courses having focus on Employability/ Entrepreneurship/ Skill development.**

The categorization of courses in curriculum R2019 based on the employability/ entrepreneurship/ skill development is presented and discussed in detail.

The BoS resolved to approve the classification of R2019 courses which focus on Employability/ Entrepreneurship/ Skill Development and is given in Annexure I.

#### **5. To approve the list of Courses under Regulation 2019 for B.Tech Biotechnology and approve the suggestions for improving the R2019 curriculum**

The List of Courses included under Regulation 2019 is presented and discussed

##### **5.1 The BOS resolved to introduce the following core courses in the curriculum:**

- 19UBT303 - Instrumental Methods of Analysis
- 19UBT305 - Principles of Genetics
- 19UBT306 – Biochemical Metabolism
- 19UBT402 – Cell Biology
- 19UBT403 – Basic Industrial Biotechnology
- 19UBT404 - Enzyme Engineering and Technology
- 19UBT501 – Molecular Biology
- 19UBT601 – Genetic Engineering
- 19UBT602 – Bioinformatics
- 19UBT701 - Downstream Processing
- 19UBT702 - Immunology
- 19UBT703 - Genomics And Proteomics

##### **5.2 The BOS resolved to introduce the following elective courses in the curriculum:**

- 19UBT901 - Artificial Intelligence in Biotechnology
- 19UBT902 - Bioremediation Technology
- 19UBT903 - Biopharmaceutical Technology
- 19UBT904 - Principles of food processing
- 19UBT905 - Process Economics and Plant Design
- 19UBT906 - Molecular Pathogenesis of Infectious Diseases
- 19UBT907 - Stem Cell Technology in Healthcare
- 19UBT914 - Cancer Biology

5.3 The proposed syllabus from III semester to VIII semester and elective courses offered by the department are presented and discussed. The following suggestions are given by the BoS members

- In 19UBT303 - Instrumental methods of analysis, the Anna University nominee, suggested to modify the title Unit - IV as “Separation techniques” and changed in the revised syllabus.
- In 19UBT305 – Principles of Genetics, the Academic Expert, Dr.M.L.Stephen Raj suggested to modify the content of Unit – IV and include the topic “Population genetics”. The suggestion was well taken and included in the modified syllabus.
- All the BoS members accepted the syllabus of “19UBT306 - Biochemical Metabolism” without any modification.
- In 19UBT404 – Basic Industrial Biotechnology, the Academic expert, Dr.R.A.Nazeer pointed out the incompleteness of the term “Production of Modern Biotechnological Products” and suggested to change as “Biopharmaceutical Products”. The suggestion was well taken and included in the modified syllabus.
- All the BoS members accepted the syllabus of 19UBT405 – Enzyme engineering and Technology without any modification.
- In 19UBT406 – Bioinformatics, the Anna University nominee suggested inclusion of practical hour to enable teaching the basic hands-on training in bioinformatics tools and also need to separately introduce the topic “system Biology” in Unit – IV. The suggestions were included in the revised syllabus.
- 19UBT501 – Molecular Biology, the Anna University nominee Dr.Adaikalam pointed out the repetition of Unit V “Regulation of Gene Expression” as in Principles of Genetics Course and suggested to modify it. The suggestions were well taken and included in the modified syllabus.
- In 19UBT502 – Bioprocess Engineering, The Anna University Nominee opined to modify Unit – I title as “Bioreactor Configurations”. The suggestion was incorporated in the revised syllabus.
- In 19UBT504 – Cell Biology, the Academic Expert, Dr.M.L.Stephen Raj suggested to include Cell development topic in Unit – V. The suggestion was included in the revised syllabus.
- In 19UBT508 – Molecular Biology Laboratory, the Academic expert, Dr.R.A.Nazeer suggested to remove the experiment “Isolation of single colony: Serial dilution, Streaking”. The suggestion was incorporated in the revised syllabus.

- In 19UBT601 - Bioethics, IPR and Biosafety, the Anna University nominee Dr.Adaikalam suggested to reorganize the units for better flow of content. The suggestions were well taken and included in the modified syllabus.
- All the committee members approved the syllabus of 19UBT702 – Plant and animal Biotechnology unanimously.
- In 19UBT603 Genetic Engineering Lab, the Anna University nominee Dr.Adaikalam suggested to shift restriction digestion and elution of DNA after 2<sup>nd</sup> experiment. The suggestion was well taken and included in the revised syllabus.
- The Industry Expert Dr.Renjith Paulose suggested to include R-programming as Unit V in the elective course 19UBT801 – Artificial intelligence in Biotechnology and also insisted to include practical hours. The suggestions were included in the syllabus.
- All the committee members accepted the framed syllabus for “Downstream Processing” without any modification.
- In 19UBT703 - Genomics and Proteomics course, the Anna University Nominee recommended to include MATLAB in the syllabus. Tutorial hours and case study shall be included in elective courses. The suggestions were accepted and included in the revised syllabus.
- The Anna University nominee Dr.Adaikalam and Industry expert Dr.Renjith Paulose appreciated the efforts taken by the Department of Biotechnology to design the elective courses based on the various domains of biotechnology and considering GATE syllabus while framing the content.

The Chairperson thanked the members of the Board of Studies in Biotechnology for their valuable contributions and suggestions.



**Chairperson**  
**Board of Studies**  
**Department of Biotechnology**  
**Sethu Institute of Technology**  
**Virudhunagar**