

Chaitanya Bharathi Institute of Technology(A)

Department of Biotechnology

Minutes of Online BOS meeting held on 16.04.2022 from 11:00 am to 01:00 pm

External BOS members

1. Dr R. Satish Babu, Head, Department of Biotechnology, NIT Warangal.
2. Dr Suman Kapur, Sr. Professor, BITS, Hyderabad
3. Mr. B. Rajam, Chairman BOS in Biochemical Engg & Biotechnology, Osmania University, Hyderabad
4. Dr Emmanuel Paul, Principal Scientist I, Albus Eco, Hyderabad.
5. Dr Anil Kondreddy, Chief operating officer, ASPIRE-BIONEST, University of Hyderabad
6. Dr Vidyani Suryadevara, Teaching Faculty, RUSH University, Illinois

Internal BOS Members

1. Dr. Y. Rajasri, Associate Professor, I/C HoD, Department of Biotechnology
2. Dr. C. Obula Reddy, Assistant Professor, Department of Biotechnology
3. Dr. V. Aruna, Assistant Professor, Department of Biotechnology
4. Dr. G. Vijaya Laxmi, Assistant Professor, Department of Biotechnology

Internal Invited Members

- Mrs. S. Sumithra, Assistant Professor, Department of Biotechnology
- Dr. Bishwambhar Mishra, Assistant Professor, Department of Biotechnology
- Dr. C. Nagendranatha Reddy, Assistant Professor, Department of Biotechnology

The following points were discussed in the meeting and recorded as follows:

Agenda of BoS Meeting

1. Review of syllabus of the 3 subjects offered by Biotechnology department as open elective to other departments
2. To review of R 20 V to VIII semesters syllabus

- To approve the syllabus of R 20 from V Sem to VIII Sem
 - To approve the course outcomes of V sem to VIII Sem
3. To approve Honors and Minor engineering degree offered w.e.f R 20 Regulations

Minutes of the BoS meeting

S.No	Item discussed
1.	To approve Syllabus of Basics of Biology, Biomaterials for engineers and Bioterrorism and National Security offered by Biotechnology department for other branches were reviewed by the BoS members.
	Action taken : The syllabus of Basics of Biology was already approved in previous BoS meetings while the other 2 subjects have been approved now.
2.	R 20 Regulations- To review of R 20 V to VIII semesters syllabus
2a.	To approve the course outcomes of V sem to VIII sem
	Action taken : The course outcomes were refined and modified and were approved by Hon'ble BoS members
2b.	In FMHT theory, Dr Satish Babu has suggested to include the topics "Heat exchangers and Rheology of materials" and Dr Vidyani opined about discussing biological applications in the initial units
	Action taken: It was clarified to Hon'ble BoS members that same were already incorporated in the syllabus
2c	In Genetic engineering and rDNA technology, Dr Vidyani has suggested to include the introductory topic on "single cell rRNA sequencing". Dr Paul has suggested to include the topics "Genome sequence assembly tools"
	Action taken : As per the suggestions, Single cell rRNA sequencing is included in Genomics and Proteomics Course, whereas Genome sequence assembly tools was already included in Bioinformatics and Computational Biology theory course.
2d	For GMLP subject, Dr Paul has suggested to have "development, regulation and practices required for CD and initial studies for scale up" for which Dr Anil agreed and opined about including them before GLP
	Action taken : The regulations required for cloning and development (CD) and related topics will be taught in unit of the GMLP
2e	For FMHT lab, Dr Satish asked to include an experiment related to Reynolds number

	Action taken : Reynold's number experiment is included in FMHT lab as suggested by BoS members.
2f	For GE lab, Dr Anil asked to include "Tools for sequencing"
	Action taken : It is clarified to BoS members that the "tools for sequencing" have already been included in the Bioinformatics lab
2g	For Bioseparation Engineering theory, Dr Satish asked to include the topic "Salting out"
	Action taken : It was clarified to Hon'ble BoS members that same were already incorporated in the syllabus
2h	For Mini project, Dr Vidyani opined about having the mini course changed to "Scientific writing" and also asked to extend it for final year project
	Action taken : A decision regarding this will be taken after discussing with higher authorities of the college.
2i	For Bioinformatics and Computational Biology theory subject, Dr Paul has asked about the tools for genome sequence assembly and annotation
	Action taken : Tools for genome sequence assembly and annotation were already included in Bioinformatics and Computational Biology theory course.
2j	For Mass transfer operations, Dr Satish asked to include "liq-liq and liq-solid extraction"
	Action taken : It is clarified that the topic liquid-liquid extraction has been included in the syllabus and leaching, which is solid liquid extraction is also included in the syllabus
2k	For Medical Biotechnology theory subject, Dr Vidyani asked few questions pertaining to <ul style="list-style-type: none"> · Include Introduction to biomarkers, imaging markers and diagnostic perspective · In Unit 2, Unit may not be limited to only cancer or medical oncology · Provide overview of all the diseases · include gender and sex in medical biotechnology and also ageing research to study age related disorders
	Action taken : The topics which were suggested by External BOS members are incorporated in UNIT-4. Overview of the diseases and Age related diseases were already included in the UNIT-1 syllabus.
2l	For Introduction to Anatomy and Physiology of Humans, Dr Vidyani asked to change this subject as core subject and also include the topics "Cross talk between different organs and impact of kidneys and cardiac on others"

	<p>Action taken : As suggested by BoS members and other stakeholders IAPH is made as mandatory subject and moved to V sem and GMP, GLP is moved from core subject to elective subject (PE-II medical biotech stream).</p> <p>The above said cross talk between different organs is already included in the syllabus</p>
2m.	<p>For Pharmaceutical Biotechnology, Dr Vidyani asked to include the topics "Biomarkers in brief and blood and plasma based biomarkers" in Unit 4</p>
	<p>Action taken : As per the suggestions of BoS members, the topic is included in unit 4.</p>
2n.	<p>For Bioseparations Engineering lab, Dr Paul asked to include High Pressure Homogenizer</p>
	<p>Action taken : It was informed to Hon'ble BoS members that such high pressure homogenizer is not available in the department. However experiments based on probe sonicator were included in the syllabus for cell disruption.</p>
2o	<p>For Bioinformatics and Computational Biology Lab, Dr Paul and Dr Anil suggested SNAP gene software for primer designing and Vector NTI comprehensive software In silico cloning.</p>
	<p>Action taken : Primer designing using NCBI Primer BLAST is included in Bioinformatics and Computational Biology lab which can also be performed by using Snapgene software. Vector NTI Software is discontinued from 31.12.2020 onwards.</p>
2p	<p>For Animal Biotechnology Lab, Dr Vidyani asked to include the experiment on collecting protein and RNA and checking the disease signaling mechanism</p> <p>And Dr Anil asked to add an experiment on "Trouble shooting of contamination" as an open ended experiment</p>
	<p>Action taken : animal biotechnology lab is being included for the first time in R20 regulations according to AICTE model curriculum. The experiment suggested by BOS member highly appreciated and it could be considered in future syllabus revision. Trouble shooting of contamination in animal biotechnology lab is included as an open ended experiment based on the suggestion of BOS members</p>
2q.	<p>For Tissue Engineering, Dr Vidyani asked to include examples of top notch pioneers and also "organ on chip" or "lab on chip"</p>
	<p>Action taken : Tissue engineering course was modified and the concerned topic was included.</p>
2r	<p>For Immunodiagnosics, Dr Vidyani asked to include Multiplex next to ELISA</p>

	Action taken : It was clarified to Hon'ble BoS members that same was already incorporated in the syllabus but in two different units
2s.	For Biosimilar technology, Dr Anil suggested to include regulatory pathways or requirements
	Action taken : The suggested requirements will be discussed initially in introduction part.
3	To approve syllabus of Honors and Minor engineering degree offered by B.Tech Biotechnology
	The syllabus and list of courses offered by Biotechnology dept from NPTEL-SWAYAM portal were discussed with Honorable BoS members and they have approve the list of subjects and courses as part of Honors and Minor engineering offered by the department

The meeting was concluded as there were no further items to discuss.

Y. Rajeev

Sd/-

Head, Biotechnology department