

Kongunadu Arts and Science College (Autonomous)
Coimbatore 641029

Department of Biotechnology

Minutes of the Board of Studies:

The Board of Studies meeting was held on 03.05.2021 at 10 am through Google Meet. The Chairman welcomed and outlined the changes to be made in the following for the board approval.

Preamble:

The Chairman Dr S R Madhan Shankar gave a preamble on the changes and inclusions made in the syllabi. He informed that the Scheme of Examination as per the regulations of the UGC and TANSCH. From the current year, based on the recommendations of our Curriculum Development Committee (CDC), Online course by NPTEL, SWAYAM or MOOC will be a compulsory component with 2 credits within the Scheme. One Course is mandatory and it should be 4 weeks minimum. Extra credits will be given to students if the student does more courses. For the MOOC, Dr S Murugan, Subject Expert said that the list of courses and the Mapping for the courses may be done before the students undertake the online course.

The Chairman appraised the board members that there has been a systematic revamp of syllabi for both UG and PG Biotechnology programmes where in the draft syllabi were prepared by the faculty members of the department and the same was sent to external subject experts for their comments/suggestions. The suggestions sent by the experts were taken into consideration and the same is placed before this Board for necessary comments/approval. Adequate care has been taken to include local issues and problems, case studies, group activities, extra hands on exposure, group discussions, report preparation etc. in every course where ever possible. This shall contribute to upskilling and reskilling of the graduates.

Item 1. To consider revision in the Curriculum, Scheme of Examination and Syllabi of UG/PG/ Certificate / Diploma courses and approval.

Item 2. To suggest the panel of names for appointment of examiners.

Item 3. Other academic activities in the department.

As per the suggestions and recommendations given by the various Stakeholders on the above items discussed, the existing/revised the Scheme of Curriculum / Scheme of Examination / Syllabi and Panel of Examiners are to be followed is annexed herewith for the implementation from the commencement of the Academic year 2020 – 2021.

The members after careful scrutiny of the changes to be made, unanimously accorded approval for the proposed changes/modifications. They also resolved to authorize the Chairman of Board of Studies to place the changes/modifications now approved by the BOS before the Standing Committee on Academic affairs and Academic Council.

Sem.	Course code	Name of the Course	Changes made
I	21 UBT 103	BSc Biotechnology Cell Biology and Genetics	Unit I: Include Ultra structure of plant and animal cell, Unit II: Include Chloroplast, Unit III: Plant cell structure and Cell wall as Self Study portion.
II	21 UBT 203	Bioinstrumentation	Unit III: Include PFGE
II	21 UBT 204	Microbiology	Course objectives and CO to be changed. Unit III Remove Nucleic acids and replication and Laboratory Safety. Contents in Unit IV is heavy: remove Immono magnetic capture of antigens which can be taken to Immunology
I& II	21UBT1 CL	Lab in Cell Biology, Genetics and Microbiology	Include Prelab Exercises in the practical
IV	21UBT403	rDNA Technology	Unit V: If there is a overlap on production of Insulin, Glucagon, Human growth factor in biopharmaceutical paper, The same may be removed here
IV	21UBT4 CM	Lab in Enzymology, Molecular Biology and rDNA Technology	Equal number of experiments in each title may be given. Remove Agarose gel electrophoresis experiment from rDNA practical which is an overlap
V	21 UBT 501	Immunology	In unit V: Include Immunomagnetic separation of antigens
	21 UBT502	Plant and Animal Biotechnology	The distribution of hours needs to be checked and revised. It is mentioned 73 instead of 65. This has to be corrected
VI	21 UBT601	Bioprocess Technology	The distribution of hours needs to be checked and revised

	21 UBT 602	Biopharmaceutical Bio Technology	The members appreciated the contents of the paper which is a newly introduced paper
	21 UBT 603	Bioinformatics	Adequate and appropriate practical exercised must be included in the units
	21 UBT6E2	Major Elective 2: Vaccine Technology	Since no proper books are available, Instead of Vaccine Technology , a course called Molecular Therapeutics can be include. The reference for this book can be Molecular Therapeutics by Pameela Greenwell can be taken as a reference. Dr Rani Suggested that this paper can be replaced in place of Vaccine Technology. The book is also available online as a e book. She suggested that this book will be very much applicable for industrial placements
	EDC	Bio entrepreneurship	The alumni member asked a question of cluster EDC which was clarified
		MSc Biotechnology	
I	21PBT101	Biomolecules	Title to be changed as Biochemistry, as this title is more of a UG title In Unit IV: Include Lipids and Nucleic acids as sub title for the unit. Unit V: Sub title to be changed as Enzymes and Coenzymes. Remove the content on Vitamins
	21 PBT 102	Biology of the cell	In the CO, remove the CO2 which says mechanotransducers. Instead

	21PBT 103	Microbiology	add: prudently use the basics of cellular communications for developing novel tools In Unit I: Remove Viral Culture in laboratory, Unit III: remove Industrial Microbiology and take it to Bioprocess technology Unit V : Remove the entire section of Molecular and Diagnostic methods
	21 PBT 104	Bioinformatics	The practical that is given at the end of the course to be distributed as Lab exercises in each of the units
	21 PBT 1 CL	Lab in Cell Biology, Biochemistry and Applied Microbiology	Title of the course be changed as Lab in Microbiology and Cellular Biology
II	21 PBT201	Molecular Biology and Genetics	In Unit V: Remove Causes of variation and artificial selection , instead include gene shuffling and functional screening
	21PBT 202	Genetic Engineering	In Unit IV: Include NGS, Nanopore sequencing, Illumina technique
	21 PBT 203	Immunotechnology	Title of the paper to be changed and Immunology and Immunotechnology In unit V include abaymes, magic bullets and new therapeutic methods
	21 PBT 2 CN	Lab in Genetic Engineering and Immunotechnology	Include Western Blot, Dot blot and Immunohistochemistry
III	21 PBT 303	Genomics Proteomics and Metabolomics	In unit V: Include Genomic and Proteomic Databases and Metabolite Databases

	21 PBT 302	Pharmaceutical Biotechnology	In Unit IV: Change Exposure to hand on training on animal handling as a DEMO
	21 PBT ME1	Environmental Biotechnology	Paper is mis placed. Replace it with the correct paper
		Food and Dairy Technology	Title to be changed as Post Production System of Foods
		Natural products	Title of the paper to be changed as Plant Therapeutics and Phytoproducts
		IPR Biosafety and Bioethics	In Unit IV: Include IBSE and its role
	EDC	Bio business and Management	Include BIRAC, BIG, BiONest, MSME etcc in unit III
		PG Diploma in Bioinformatics	
		A PG Diploma in Bioinformatics was introduced from the Academic year 2020-2021 and onwards in on line Distance learning mode. The chairman placed the scheme and Syllabi of the programme and requested for necessary approval and for ratification in the Academic Council meeting which will be scheduled subsequently.	The members suggested that the project work that is given in the curriculum can be made comprehensive with adequate exposure to Computer applications in Bioinformatics

The members of the Board of Studies in Biotechnology resolved unanimously to authorise the Chairperson Dr S R Madhan Shankar to submit the list of examiner panel for Question paper setting, Evaluation and Practical examinations.


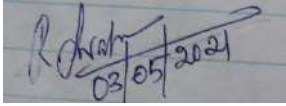
General Comments from Experts:

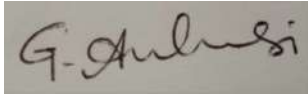
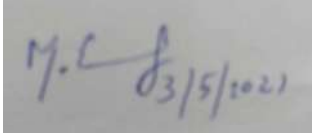




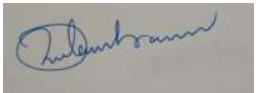
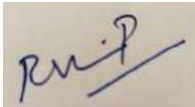

1. Allotment of hours for each unit in all courses must be checked with the content of the units
2. Reference and text books must be in a standard format and some latest text and reference books have to be included
3. Overlaps are removed and the syllabus seems to be fine without overlap
4. The Course Outcomes and Objectives needs to be revised in all the courses
5. Suggest 5 Course Outcomes and K1 to K5 levels.
6. The CO need not be unit wise rather it must completely map the course
7. In PG, Dr P Rani Suggested that a paper on Analytical Biotechnology may be introduced.
8. For PG Non Major Elective I and II, the syllabus can be aligned with CSIR Net syllabus and make it online exam. The title can be Paper I Aptitude and Reasoning Skills and Paper II can be Competitive Test. In one paper a Viva can be included
9. The members unanimously appreciated the Content of the syllabus and the choice of papers that are provided to the students. The members also observed that a thorough homework has been done by the faculty before the Board of Studies meeting where for every draft syllabus, an expert comment has been got from various experts.
10. The members stated that the curriculum and syllabi are complete in all aspects without any academic gap.

Other Academic Activities:

1. For case studies, appropriate industries may be selected
2. For the Course Total Quality Management, a few chapters may be handled by the Management Studies faculty which will give them better clarity
3. The mode of teaching and delivery of the contents must be suited to the students
4. The teachers may update the methods of teaching which can be blended

Signature of the Board Members

S.No.	Name	Designation	Signature
1.	Dr S R Madhan Shankar Chairman	Dean Academics, Associate Professor and Head in PG Biotechnology	
2.	Dr. R. Sivaprakash Board Member	R&D. Dean Associate, Assistant Professor and Head in UG Biotechnology	

3.	Dr. G. Anbarasi Board Member	Assistant Professor PG and Research Department of Biotechnology	
4.	Dr. M. Gogul Ramnath Board Member	Assistant Professor PG and Research Department of Biotechnology	
5.	Dr. B. Vishnupriya Board Member	Assistant Professor PG and Research Department of Biotechnology	
6.	Dr. R. Sathish Kumar Board Member	Assistant Professor PG and Research Department of Biotechnology	
7.	Mrs. R. Kiruba Board Member	Assistant Professor PG and Research Department of Biotechnology	
8.	Dr. L. Kathirvelkumaran Board Member- Co Opted for PGDBI	Assistant Professor Department of Computer Applications	
9.	Dr. P. Chidambararajan University Nominee	Professor and Head Department of Biotechnology Dr. N.G.P. Arts and Science College	
10.	Dr. P. Rani Subject Expert- Co opted	Professor PSG College of Technology	
11.	Dr. S. Murugan Subject Expert	Associate Professor Department of Biotechnology Karunya Institute of Technology and Sciences	

12.	Dr. A. Sangilimuthu Subject Expert	Professor and Head Department of biotechnology karpagam Academy of Higher Education	
13.	Dr. S. Vijayakumar Industrial Personnel	Research organizer, VJ Biotech	
14.	Ganesh.S Alumni	Student of II M.Sc., PG Department of Biotechnology	
15.	Amrin. A Alumni	Student of I M.Sc., Biotechnology, Bharathiar University	

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Signature of the Chairman of the Board