



KONGU ARTS AND SCIENCE COLLEGE

(An Autonomous Institution, Affiliated to Bharathiar University, Coimbatore)

ERODE – 638 107

Department of Biotechnology



KONGU ARTS AND SCIENCE COLLEGE (Autonomous)



Affiliated to Bharathiar University, Coimbatore
Approved by UGC, AICTE, New Delhi & Re accredited by NAAC, DBT STAR College
(An ISO 9001: 2015 Certified Institution)
NANJANAPURAM, ERODE – 638 107

DEPARTMENT OF BIOTECHNOLOGY


BOARD OF STUDIES MEETING

AGENDA

DATE: 15.07.2020

1. To consider and approve the syllabi for the students admitted during the academic year 2018-2019 and 2019-2020 and onwards
2. To consider and approve the Panel of Examiners.
3. To consider and discuss any other subjects with the permission of the chair.




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The meeting of the Board of Studies in Biotechnology UG was conducted on
15.07.2020 at 10.00 a.m. through online mode (Google Meet)

The following members were present:

Chairman : Dr.C.Deepa

Members :

1. Dr.P.Rani

2. Dr.S.R. Prabhakaran


3. Ms.G.Ramya

4. Ms.M.Monisha

5. Ms.R.S.Cindhu

6. Ms.S.Gayathri




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Subject related to CBCS, Outcome based Syllabus, Advanced Learners Course and Attendance Marks in CIA were discussed and the following are the resolutions:

1. It is resolved to approve there is no change in the syllabi of I and II Semesters for B.Sc. Biotechnology students admitted during the academic year 2020-2021 and onwards be approved.
2. It is resolved to approve there is no change in the syllabi of IV Semester Advanced Learners Course for B.Sc. Biotechnology students admitted during the academic year 2019-2020 and onwards be approved.
3. It is resolved to approve there is no change in the syllabi of III and IV Semesters Non-major Elective Courses for other UG students admitted during the academic year 2019-2020 and onwards be approved.
4. It is resolved to approve there is a modification in the syllabi of III & IV Semesters for B.Sc. Biotechnology students admitted during the academic year 2019-2020 and onwards be approved. (**Annexure a**)
5. It is resolved to approve there is a modification in the syllabi of V and VI Semesters for B.Sc. Biotechnology students admitted during the academic year 2018-2019 and onwards be approved. (**Annexure a**)
6. It is resolved to approve there is a modification in the syllabi of V Semester Advanced Learners Course for B.Sc. Biotechnology students admitted during the academic year 2018-2019 and onwards be approved.
7. It is resolved to approve there is the Additional name for the panel of Question Paper Setters and Examiners be approved.
8. Due to Pandemic, the points discussed in previous Board of Studies will be implemented from 2021-2022 and onwards.



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Details of Modifications in the Courses offered under the Programme

B. Sc. Biotechnology


Modification by addition and removal of topics are carried out in the syllabi of III, IV, V & VI semesters of B.Sc. Biotechnology based on the feedback obtained from Stakeholders and recommendations of the BOS Panel Member.

- The following Core courses and practicals are introduced newly in the III and IV semesters for the UG students (**Annexure b**).

- Semester III - Core Paper IV – Microbiology (19UAQCT301)
- Semester IV - Core Practical II – Lab in Microbiology (19UAQCP402)

Modification by addition and removal of topics are carried out in the in the syllabi of III, IV, V & VI Semesters. (**Annexure b**)




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Details of Modifications with specific topics in the Syllabus with % Revision

B.Sc. Biotechnology

S.No.	Course Name	Course Code	Topics Introduced	Topics Removed	% of Revision
1	Core Paper IV – Microbiology	19UAQCT301	Unit -I to Unit – V are introduced		100 %
2	Core Paper V – Genetics	17UAQCT302	Unit II: Allelic gene interaction: complete dominance, partial or incomplete dominance, co-dominance, Multiple Alleles (ABO blood groups and Rh factor), Lethal alleles, penetrance and expressivity, pleiotropism.	Unit I: Allelic gene interaction: complete dominance, partial or incomplete dominance, co-dominance, Multiple Alleles (ABO blood groups and Rh factor), Lethal alleles, penetrance and expressivity, pleiotropism. Unit II: Extranuclear inheritance – mitochondrial and chloroplast genes and maternal inheritance. Genetic control in development of Drosophila and Arabidopsis. Unit III: Sutton's view on linkage, Chromosome theory of Linkage	20 %
3	Skill Based Course I – Skill Based Course I Lab in Quality Control Techniques	17UAQSP304	1. Determination of Moisture content in food 2. Quality assessment of chilli powder 3. Characterization of turmeric powder – Assessment of curcumin 4. Determination of Acid Value of Fats 5. Basic analysis – Colour, turbidity, odour, pH and BOD 6. Determination of TDS 7. Determination of total hardness 8. Determination of Chlorine content	1. Introduction to safety standards-Theory 2. Determination of acidity and alkalinity of food samples 3. Determination of iron content in water 4. Determination of chromium content in water 5. Determination of nitrogen in soil 6. Determination of potassium in soil 7. Determination of casein and calcium from milk	67 %
4	Core Practical II – Lab in Microbiology	19UAQCP40	Experiment 1 to 10 are introduced		100 %
5	Core Paper VII – Immunology	20UAQCT501	Unit IV: Immunity to infection – recognition and inactivation of pathogens (Bacteria	Nil	10 %

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			Unit V: Tests for detecting autoimmune disorders: CRP, ESR, Coombs Test.		
6	Core Paper VIII – rDNA Technology	20UAQCT502	Unit IV: Complementmentation test, marker inactivation, Blotting and hybridisation techniques and invitro translation	Nil	7 %
7	Core Paper IX – Plant Biotechnology	20UAQCT503	Unit II: embryo rescue, anther and microspore culture, Micrografting, Seed storage proteins	Nil	5 %
8	Elective - I: Environmental Biotechnology	20UAQET504	Unit III: Biomass – Plant, Animal and Microbial Biomass. Biomass as source of energy. Production of Bioethanol and Biomethanol	Nil	5 %
9	Elective - I: Marine Biotechnology	20UAQET505	Unit I: Marine living resources. Sea ranching of economically important marine organisms.	Nil	5 %
10	Elective - I: Virology	20UAQET506	Unit IV: Approaches to viral diagnosis - Serological and Molecular techniques of viral infections.	Nil	5 %
11	Skill Based Subject III – Biofarming	20UAQST507	Unit II: Liquid manuring, Process of organic farming. Unit IV: Panchakavya – preparation, applications, importance and marketing.	Nil	7 %
12	ALC: Cancer Biology	20UAQAL508	Unit III: Mechanisms of oncogene activation, Role of growth factors and receptors in carcinogenesis. Unit V: Cell culture based Vaccines.	Nil	7 %
13	ALC: Research Methodology	20UAQAL509	UNIT IV: Statistical Methods UNIT V: Report and Thesis Writing	UNIT IV: Report and Thesis Writing UNIT V: Statistical Methods	10 %
14	Core Paper X – Industrial Biotechnology	20UAQCT601	Unit IV: Dairy products – cheese and yogurt. Process wastes - whey, molasses, starch substrates and other food wastes for bioconversion to useful	Nil	10 %



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			products.		
15	Core Paper XI – Animal Biotechnology, Bioethics and IPR	20UAQCT602	Unit I: Cell line preservation and Large scale culture of cell lines. Cell banks. Unit II: cell synchronization and senescence. Unit IV: Ethical implications of Biotechnological products and techniques. Unit V: Patents: Introduction and types of patents. Patent Filling Procedures and Patent licensing	Nil	10 %
16	Core Practical III – Lab in Immunology and Plant Tissue Culture	20UAQCP603	1. Quantification of Antigen-Antibody reaction 2. Invitro determination of Anti-inflammatory effect of a compound 3. Separation of Ig using chromatography 4. Qualitative and Quantitative analysis of Phytochemicals 5. Invitro antioxidant study 6. Synthesis of nanoparticles using plant extract	1. Immunoelectrophoresis - CIE and rocket tests – Demo. 2. Artificial seed production 3. Qualitative analysis of Phytochemicals	32 %
17	Core Practical IV – Lab in rDNA Technology and Industrial Biotechnology	20UAQCP604	1. Amplification of DNA (PCR) 2. Down stream processing	Nil	11 %
18	Elective - II: Bioinformatics	20UAQET605	Unit II: CATH, SCOP Unit IV: Phylogenetic analysis– UPGMA and NJ methods.	Nil	10 %
19	Elective - II: Developmental Biology	20UAQET606	Unit II: Genetic regulations in embryonic development. Artificial Fertilization methods (IVF, IUI, ICSI)	Nil	10 %
20	Elective - II: Pharmaceutical Biotechnology	20UAQET607	Unit I: Pharmacoepidemiology, Pharmacovigilance and Pharmacognosy	Nil	5 %


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21	Skill Based Subject IV – Medical Biotechnology	20UAQST609	Unit IV: Drug Development Process: Methods involved in the development of new drugs. Preclinical toxicological studies. Calculation of LD50 & ED50. Acute, subacute and chronic toxicity studies	Nil	10 %
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- In overall, there had been a 12% of revision in the syllabus of the B. Sc., Biotechnology programme.




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All the above resolutions are approved

1.  - (DEEPA.C)
- 2.
- 3.
- 4.
- 5.
6. R.S.  - LINDHU.R.S
7.  - S.GAYATHRI




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