



KONGU ARTS AND SCIENCE COLLEGE

(Autonomous)



Affiliated to Bharathiar University, Coimbatore

Approved by UGC, AICTE, New Delhi & Re Accredited by NAAC, DBT STAR College Scheme

(An ISO 9001 : 2015 Certified Institution)

NANJANAPURAM, ERODE – 638 107

MINUTES

Meeting of the Board of Studies held on 06.06.2023

For the Academic year 2023-2024

(EVEN SEMESTER)

KONGU ARTS AND SCIENCE COLLEGE
(An Autonomous Institution, Affiliated to Bharathiar University, Coimbatore)
Nanjanapuram, Erode – 638 107.



DEPARTMENT OF BIOCHEMISTRY

BOARD OF STUDIES MEETING

AGENDA

DATE: 06.06.2023

1. To consider and approve the Scheme and Syllabi for the students admitted during the academic year 2021 – 2022, 2022-2023 and 2023-2024 and onwards.
2. To consider and approve the new Question paper pattern, CIA and ESE Component for the students admitted during the academic year 2023 – 2024 and onwards.
3. To consider and approve the adoption of no minimum mark requirements in CIA for the students to be admitted during the academic year 2023 – 2024 and onwards
4. To consider and approve the Panel of Examiners.
5. 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 Biochemistry (UG & PG) was conducted on
06.06.2023 at 10.00 a.m. in the College Campus

The following members were present:

Chairman : **Dr. A. K. VIDYA**

Members :

1. Dr. N. SANGEETHA (Senior Faculty)
2. Mrs. T. RADHA (Senior Faculty)
3. Dr. T. PALVANNAN (University Nominee)
4. Dr. B.RAMESH (Subject Expert)
5. Dr. JAYAPRAKASH NATARAJAN (Alumni Representative)
6. Mr. R. RASU (Faculty Member)
7. Mr. S. NATARAJAN (Faculty Member)
8. Mr. G. KARTHIKEYAN (Faculty Member)
9. Mr. T.G.NAGULAN (Faculty Member)

Subject related to CBCS, Outcome based Syllabus, Credit Systems, Question Paper Pattern, CIA and ESE Component, inclusion of Naan Mudhalvan Courses, no minimum mark requirements in CIA and Panel of Examiners were discussed and the following are the resolutions:

1. It is resolved to approve
 - a. The New Scheme of Examination and Syllabi of I and II Semesters for the B.Sc Biochemistry and M.Sc Biochemistry students admitted during the academic year 2023 – 2024 and onwards.
 - b. The change in the Scheme of Examination and Syllabi of III and IV Semesters for the B.Sc Biochemistry students admitted during the academic year 2022 – 2023.
 - c. The change in the Scheme of Examination and Syllabi of V and VI Semesters for the B.Sc Biochemistry students admitted during the academic year 2021 – 2022.
 - d. The syllabi of 2022-2023 batch of III and IV semesters be followed for the M.Sc Biochemistry students admitted during the academic year 2023 – 2024.
 - e. The change in the syllabi of Allied Chemistry I in the first semester for the B.Sc Biochemistry and Physics students admitted during the academic year 2023 – 2024 and onwards.
2. It is resolved to withdraw Profession English I and II under part III for the students to be admitted during the academic year 2023 – 2024 and onwards.
3. It is resolved to approve the new question paper pattern to be followed for the students to be admitted during the academic year 2023 – 2024 and onwards. (Annexure – I)
4. It is resolved to approve the CIA and ESE Components with the break up marks specified for the students to be admitted during the academic year 2023 – 2024 and onwards. (Annexure – II)
5. It is resolved to approve the inclusion of Naan Mudhalvan Courses for students admitted during the academic year 2023 – 2024 respectively
6. It is resolved to approve that no minimum mark requirements in CIA to be followed for the students to be admitted during the academic year 2023 – 2024 and onwards
7. It is resolved to approve the Syllabi for the Advanced Learners for the IV Semester for students who have been admitted during the academic year 2022 – 2023 and onwards.
8. It is resolved to approve the additional name for Panel of Members for Question Paper Setting and Central Valuation. (Annexure – III)

B.Sc Biochemistry

The following modifications are done in the Syllabi of I and II Semesters for the B.Sc Biochemistry students admitted during the academic year 2023-2024 and onwards.

- The Core Paper **Cell Biology and Genetics** is shifted from Semester III to Semester I instead of **Core I: Professional English-I**.
- The Skill Based Course III **Nutritional Biochemistry** is shifted from Semester V to Semester II instead of **Core III: Professional English-II**.
- The **Nanotechnology** portion is incorporated instead of Tracer techniques (Radioisotopes) in the Unit 5 of **Core paper III: Tools and Techniques in Biochemistry**
- The Tracer techniques (Radioisotopes) topics in Core paper III: Tools and Techniques in Biochemistry is shifted to **Allied Chemistry I**
- The contents of Core Biochemistry Practicals I is divided into two papers and offered as **Core Biochemistry Practicals I and II** in Semester I and II respectively

The following modifications are done in the Syllabi of III and IV Semesters for the B.Sc Biochemistry students admitted during the academic year 2022-2023 Batch only.

- **Major revision** made in the **Microbiology** Unit by introducing new experiments for DBT star College Scheme in **Core Biochemistry Practicals II**.
- **Forensic Biochemistry** is introduced as Skill Based course II instead of **Nanotechnology and Clinical trials** in the Semester IV.
- The **Nanotechnology and Clinical trials** is offered as Advanced Learners Course I instead of **ALC I: Biophysics**.

The following modifications were carried for the students admitted during the academic year 2021-2022 Batch and onwards

- The Skill Based Course III - **Medical Coding** paper was removed and the Medical terminology portion was included in the Core Paper VIII - Human Physiology and Endocrinology and the paper is renamed as **Human Physiology and Medical Terminology**.

- The Skill Based Course I - **Nutritional Biochemistry** offered in Semester III has been removed and shifted to the V Semester.
- The Core Paper XIII - **Immunology and Immunotechniques** was renamed as **Fundamentals of Immunology**.
- The following Elective Papers are removed from the Scheme and Syllabi of B.Sc Biochemistry
 - ✓ Elective Paper II (B) - Nanomaterials and Nano medicine
 - ✓ Elective Paper II (C) - Genomics and Proteomics
 - ✓ Elective Paper III (B) - Sports Biochemistry
- The following Elective Papers are introduced instead of above removed Elective Papers from the Scheme and Syllabi of B.Sc Biochemistry
 - ✓ Elective Paper II (B) - Environmental Biochemistry
 - ✓ Elective Paper II (C) - Hormonal Biochemistry
 - ✓ Elective Paper III (B) - Biostatistics
- ✓ **Major revision** made in the **Clinical Biochemistry** unit in **Core Biochemistry Practicals III** and **Plant Biochemistry** unit of **Core Biochemistry Practicals IV** by introducing new experiments for the DBT Star College Scheme

M.Sc Biochemistry

- There is a **deletion** of few topics in **Core VIII: Molecular biology and Molecular Genetics** like **Epigenetics** and **Protein Translocation** offered in the II Semester due to repetition in the Syllabus.

Modification by addition and removal of topics are carried out in the in the syllabi of B.Sc and M.Sc Biochemistry (Refer Annexure b)

Details of modifications with specific topics in the Syllabus with % revision

B.Sc Biochemistry

I B.Sc BIOCHEMISTRY

S. No	Course Code	Course	New Topics Added	Topics Removed	% of Revision
1.	23UAPCT101	Core 1: Chemistry of Biomolecules	-	-	-
2.	23UAPCT102	Core 2: Cell Biology and Genetics	-	-	-
3.	23UAPCP103	Core : Biochemistry Practicals - I	Qualitative Analysis of Carbohydrates and Lipids using Natural Samples – fruits & Oil Seeds Determination of Ash and Moisture content using natural sources Determination of Acid Number Determination of Iodine Number	-	40 %
4.	23UAPAT104	Allied 1: Chemistry I	-	-	-
5.	23UAPCT201	Core 3: Tools and Techniques in Biochemistry	Unit 5 - Nanotechnology	Unit 5 – Tracer Technique	20 %
6.	23UAPCT202	Core 4: Nutritional Biochemistry	Shifted from Second Year syllabi Bomb calorimeter Balanced diet – importance and diet chart Antinutritional factors	-	20 %
7.	23UAPCP203	Core: Biochemistry Practicals - II	Determination of pH using different fruit samples	-	20 %
8.	23UAPAT204	Allied 2: Chemistry II	-	-	-
9.	23UAPAP205	Allied Practicals 1: Chemistry	-	-	-

II B.Sc BIOCHEMISTRY

S. No	Course Code	Course	New Topics Added	Topics Removed	% of Revision
1.	22UAPCT301	Core V - Enzymes and Enzyme Technology	-	-	-
2.	22UAPCT302	Core VI - Cell Biology and Genetics	-	-	-
3.	22UAPAT303	Allied III: Basic Mathematics	-	-	-
4.	22UAPST304	Skill Based Course I - Microbiology	-	-	-
5.	22UAPNT305	Non-major Elective - I	-	-	-
6.	22UAPCT401	Core VII - Intermediary Metabolism	-	-	-
7.	22UAPCP402	Core Biochemistry Practicals II	• Acid-Fast Staining • Acridine Orange Staining • Calcofluor White Staining • Haematoxylin-Safranin Method for Algae • Safranin-Fast Green Method for Algae • Preparation and efficacy testing of Azotobacter from isolates obtained from soils	-	30 %
8.	22UAPAT403	Allied IV: Python Programming	-	-	-
9.	22UAPAP404	Allied Practicals II: Python Programming Lab	-	-	-
10.	22UAPST405	Skill Based II: Forensic Biochemistry	New Course	-	100 %
11.	22UAPNT406	Non-major Elective - II	-	-	-
12.	22UAPAL407	Nanotechnology and Clinical trials	Shifted from SBC to ALC	Biophysics	-
13.	22UAPAL408b	Phytochemistry and Phytochemical Techniques	-	-	-

III B.Sc BIOCHEMISTRY

S. No	Course Code	Course	New Content Introduced	Topics Removed	% of Revision
1.	21UAPCT501	Core VIII - Human Physiology and Medical Terminology	Medical Terminology for each system - introduced	-	50 %
2.	21UAPCT502	Core IX - Clinical Biochemistry	-	-	-
3.	21UAPCT503	Core X - Molecular Biology	Direct Repair Wobble Hypothesis Types - Cut-and-Paste Transposons, Replicative Transposons, Retro Elements	-	15 %
4.	21UAPCP504	Core Biochemistry Practicals III	Routine Blood Test (Kit Method) - Random Blood sugar, hemoglobin A1c (HbA1c) Physiology Experiments (Shifted from CP 4) Bleeding & clotting Time, Prothrombin Time Estimation of Hemoglobin in Whole blood (Cyanmethemoglobin method) Identification of Blood group and Rh factor. Pregnancy test Qualitative analysis of normal and abnormal urine constituents: Sugar, Proteins, Ketone Bodies, Urobilinogen, Bile Salt and Bile Pigments	-	40 %
5.	21UAPET505	Elective I A - rDNA Technology	High Cloning Capacity vectors (YACs & BACs) Dot Blot, Maxam-Gilbert, Next Generation sequencing. Incorporation of Gene Transfer method in Plants and Animals in Unit 4 & 5	-	40 %
6.	21UAPET506	Elective I B - Plant and animal biotechnology	Patent - process and Strategy IPR: Types of IPR, Role of IPR in Research and Development Biosafety Issues in Biotechnology, Biological Safety Cabinets; Containment- Types. Basic Laboratory and Maximum Containment Laboratory	-	20 %
7.	21UAPET507	Elective I C - Microbial Genetics	-	-	-

8.	21UAPST508	Skill Based III – Nutritional Biochemistry	English incorporation Bomb calorimeter Balanced diet – importance and diet chart Antinutritional factors	-	20 %
9.	21UAPAL509	Advanced Learners Course III - Cancer Biology	-	-	-
10.	21UAPAL510	Advanced Learners Course IV - Entrepreneurship Development In Life Sciences And Healthcare	-	-	-
11.	21UAPCT601	Core XI - Medicinal Biochemistry	-	-	-
12.	21UAPCT602	Core XII - Plant Biochemistry and Plant Therapeutics	-	-	-
13.	21UAPCT603	Core XIII - Immunology	Hematopoiesis Organ specific and systemic autoimmune diseases, possible mechanisms of induction of autoimmunity	-	20 %
14.	21UAPCP604	Core Biochemistry Practicals IV	Estimation of Nitrogen in Fruits and Vegetables using Digital Nitrate Detector Estimation of Aspirin content in drugs Determination of Adulterants in Foods Separation of Proteins by SDS-PAGE <u>Shifted from CP 2</u> Estimation of Iron from Plant source by Wong's method Estimation of Fructose from Fruits by Seliwanoff method Estimation of Ascorbic acid from Citrus Fruits by Dye Method Estimation of Calcium in Milk Determination of Casein from Milk	-	50 %
15.	21UAPEP605	Elective II - Bioinformatics Practicals	-	-	-

16.	21UAPET606	Elective II - Environmental Biochemistry	New Course	-	100 %
17.	21UAPET607	Elective II - Hormonal Biochemistry	New Course	-	100%
18.	21UAPET608	Elective III - Diagnostic Biochemistry	-	-	
19.	21UAPET609	Elective III - Biostatistics	New Course	-	100 %
20.	21UAPEV610	Elective III - Project	-	-	-
21.	21UAPST611	Skill Based IV - Bioinformatics	Terminologies of Phylogenetics	PRINT	10 %

In overall, there had been a **10 %** of revision in the Syllabus of B.Sc Biochemistry Programme

M.Sc BIOCHEMISTRY

S. No	Course Code	Course	New Topics Added	Topics Removed	% of Revision
1.	23PBFCT101	Core I - Biopolymers	-	-	-
2.	23PBFCT102	Core II - Advanced Bioanalytical Techniques and Bioinformatics	-	-	-
3.	23PBFCT103	Core III - Advanced Enzymology	-	-	-
4.	23PBFCT104	Core IV - Cellular Biochemistry	-	-	-
5.	23PBFCT105	Core V - Plant Biochemistry and Biotechnology	-	-	-
6.	23PBFCT106	Core Biochemistry Practicals I	-	-	-
7.	23PBFCT107	Animal Biotechnology and Nanotechnology	-	-	-
8.	23PBFCT108	Genomics and Proteomics	-	-	-
9.	23PBFCT109	Stem Cell Technology	-	-	-
10.	23PBFCT201	Core VI - Endocrinology	-	-	-
11.	23PBFCT202	Core VII - Immunology and Immunotechniques	-	-	-
12.	23PBFCT203	Core VIII - Molecular Biology and Molecular Genetics	-	Epigenetics- Fundamentals only Protein glycosylation in ER and Golgi complex.	5 %
13.	23PBFCT204	Core IX - Bioethics, Biosafety, TQM & IPR	-	-	-
14.	23PBFCT205	Core Biochemistry Practicals II	-	-	-
15.	23PBFCT206	Biochemical and Environmental Toxicology	-	-	-
16.	23PBFCT207	Hospital Management and Health Care	-	-	-
17.	23PBFCT208	Concepts of Drug Delivery and Clinical Research	-	-	-

In overall, there had been a 1 % of revision in the Syllabus of M.Sc Biochemistry Programme

All the above resolutions are approved.

1. Dr. A. K. Vidya - Chairperson
2. Dr. N. Sangeetha - Senior Staff member
3. Mrs. T. Radha - Senior Staff member
4. Dr. T. Palvannan - University Nominee
5. Dr. B. Ramesh - Subject Expert
6. Dr. Jayaprakash Natarajan - Alumni Representative
7. Mr. R. Rasu - Faculty Member
8. Mr. S. Natarajan - Faculty Member
9. Mr. G. Karthikeyan - Faculty Member
10. Mr. T. G. Nagulan - Faculty Member

A. K. Vidya
6/6/23

N. Sangeetha
6/6/2023
Radha
6/6/23

Palvannan
06/6/23

B. Ramesh 6/6/23

Jayaprakash

n. rasu

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G. Karthikeyan
6/6/23

T. G. Nagulan
6/6/23