

Kongunadu Arts and Science College (Autonomous)
Coimbatore 641029

Department of Biochemistry

Minutes of the Board of Studies:

The Board of Studies meeting was held on 27.03.2026 .The Chairman welcomed and outlined the changes to be made in the following for the board approval.

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 variousStakeholders on the above items discussed, the existing/ revised the Scheme of Curriculum / Scheme of Examination / Syllabiand Panel of Examiners are to be followed is annexed herewith for the implementation from the commencement of the Academic year 2026 – 2027.

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.

M.Sc., Biochemistry

Sem.	Course code	Name of the Course	Changes made
II	26PBC2CM	Core Practical 2 : Lab in Plant Biochemistry, Microbiology and Molecular Biology	Changed the duration of end semester practical examination from 5hrs to 6hrs.
III	26PBC3CN	Core practical3:LabinImmunology, Genetic Engineering and Clinical Biochemistry	Changed the duration of end semester practical examination from 5hrs to 6hrs. Removed “Glucose tolerance test”
	26CCL1CL	Certificate course on medical laboratory technology Practical I	Changed the title from Practical I to Clinical Biochemistry Practical I
I	26PBC101	Core Paper1–Chemistry of Biomolecules	Title changed to “CorePaper1– Chemistry of Biomolecules” Unit I-Removed peptide glycans, lipopolysaccharides, added glycol-proteins Unit II: Removed Water and its physicochemical properties, Ionization of water, pH scale, Henderson – Hassel balch equation. Unit III: added Protein denaturation and its misfolding diseases Unit V : modified House stream geometry method to Maxam–Gilbert sequencing, Removed Chemical synthesis of DNA.
I	26PBC102	Core Paper2–Bio analytical techniques	Unit I-Added “and isolation of bio molecules”, Removed “and preparation methods of bio products for analysis” . Included “the word of biological samples”. Removed “application of electrophoresis in analysing macromolecules”. Unit II: Included “Applications in biochemical

			<p>and clinical analysis”</p> <p>Unit III: Removed “Overview of introduction to spectroscopy”.Included “Basic principles of spectroscopy, Interaction of electromagnetic radiation with bio molecules”.</p> <p>Unit IV: Include the word “and its applications in bimolecular studies”.</p> <p>Unit IV: Included “Applications of diagnostic imaging in clinical practice”.</p>
I	26PBC103	Core Paper3 – Enzymes and Enzyme technology	<p>Unit I: Replaced the word “from different methods” to “enzyme assays””</p> <p>Removed “Measurement of enzyme activity - two point assay, kinetic assay, using radio-labelled substrates. A brief account of non protein enzymes – ribozymes”</p> <p>Unit II: Added “Zymogen activation”.</p> <p>Unit III: Removed “Eisenthal and Cornish - Bowden plot”</p> <p>Unit IV : Removed “mechanism of oxidation and reduction of: flavin enzymes”, Interchanged PALP and PAMP to PLP and PMP”. Removed “carboxylation reaction, coenzymes , coenzyme role of</p> <p>Unit V- Included the word “Applications in” , Interchanged the term “therapeutic uses of to therapeutic enzymes” , Removed “Diagnostic enzymes, purification of proteins”.</p>
II	26PBC104	Core Paper-4–Cellular Biochemistry	<p>Unit III: Removed the topic “Ecological amplitude of cells in high altitude, sediments, arctic, hot springs, arid, brackish and fresh water environments”.</p> <p>Included the topic “ Adaptation to various ecological zones “</p>
II	26PBC205	Core Paper 5–Plant Biochemistry	<p>Included topics in Unit II: Organic manures in nitrogen enrichment - Panchagavya</p>

			<p>Unit III: Natural plant growth regulators in traditional farming</p> <p>Unit IV: Role of medicinal plants in Indian systems</p> <p>Unit V: Indigenous seed conservation systems and biodiversity protection</p>
II	26PBC206	Core Paper 6– Metabolism and Metabolic Regulation	<p>Unit I: Included “Energy metabolism: ATP as energy currency, High energy phosphate compounds, Redox carriers (NAD⁺, NADP⁺, FAD)”.</p> <p>Unit II: Remove “The amphibolic nature of the Citric acid cycle – Anaplerotic mechanism”,</p> <p>Unit III: Remove “Biosynthesis of saturated & unsaturated fatty acids. Regulation of fatty acid metabolism. Included Fatty acid biosynthesis and regulation”. Removed “triacyl glycerol, phospholipids & sphingolipids. Cholesterol biosynthesis & regulation. Degradation of cholesterol, Remove the term Cyclic & linear pathways of “</p> <p>Unit IV: Added “Biosynthesis of biologically important molecules derived from amino acids (serotonin, catecholamines, GABA, melanin, creatine)”.</p> <p>Removed “Conversion of amino acids to specialized products: Serotonin, Gammaamino butyric acid, Dopamine, Epinephrine, Nor-Epinephrine, Melanin, Creatinine, Creatine”.</p> <p>Interchange from “Protein and Fat metabolism to lipid and Protein metabolism”</p> <p>Remove the term “few important amino acids.”</p>
II	26PBC208	Core Paper 8– Pharmaceutical Biochemistry	<p>Title Changed to “Core Paper 8– Pharmaceutical Biochemistry”</p> <p>Unit I: Interchange the topic “gradal and quantal, therapeutic index from Unit II to Unit I”.</p> <p>Included the topic “Traditional drug sources in</p>

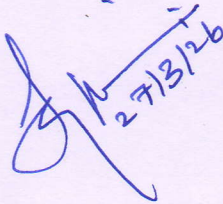
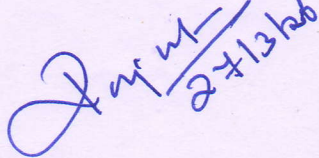
			<p>Ayurveda and Siddha systems, basic concepts of Rasayana drugs and plant-derived therapeutics based on IKS”.</p> <p>Unit II: “Interchange the topic cytochrome p450 enzyme subtypes to cytochrome p450 enzyme system. Included the topic Herb–drug interactions in traditional medicines”</p> <p>Unit III: Changed the topic title from “Drug Therapeutics to Drug Therapeutics and chemotherapy” Included “General principles of chemotherapy, Removed alkaloids”.</p> <p>Unit V: Remove “Drug tolerance, intolerance, addiction, allergy, antagonism and synergism”.</p>
III	26PBC309	Core Paper 9 – Immunology and Immunological Techniques	Included the topic in Unit V- “COVID vaccine”
III	26PBC310	Core Paper 10–Research methodology, Biostatistics and Data science	<p>changed the title from “Biostatistics and research methodology to “Research methodology, Biostatistics and Data science”</p> <p>Whole syllabus is revamped</p>
IV	26PBC413	Core Paper 13 rDNA technology	Changed the title to “Core Paper 13 rDNA technology”
I	26PBC1CL	Core Practical 1– Biomolecules, Bioinstrumentation, Enzymology and Cell Biology	<p>Changed the title “estimation of starch” into “Isolation and estimation of starch from potato”</p> <p>“Estimation of glycogen” in to Isolation and estimation of glycogen from liver</p> <p>“Estimation of Fructose” in to Estimation of Fructose in fruits</p> <p>“Extraction of total carotenoids and estimation of β-Carotene” in to “Estimation of β-Carotene from carrot”</p> <p>Change the title 9.PCR and Agarose gel electrophoresis (Demo)</p> <p>Gel Documentation (Demo) in to PCR and</p>

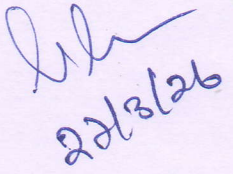
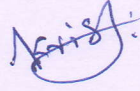
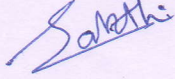
			<p>Agarose gel electrophoresis with gel documentation</p> <p>Removed the topics: “Estimation of Lactose in milk”</p> <p>“Estimation of Total Free Amino acids by Ninhydrin method”</p> <p>“Determination of Alanine transaminase activity”</p> <p>“Determination of Lactate dehydrogenase activity”</p> <p>“Isolation of mitochondria and estimation of succinate dehydrogenase”</p> <p>Added the Topics: “Effect of pH, Temperature and Substrate concentration on catalase activity”</p> <p>“Effect of pH, Temperature and Substrate concentration on Salivary amylase activity”</p> <p>“Assay of SGPT & SGOT in Serum & Liver”</p>
		Major Elective: Bioethics, Bio safety and IPR	Revamped the syllabus
	26CCL101	Certificate course on medical laboratory technology Paper I- Biochemistry	<p>Unit II: Removed the word “in analytical chemistry”, Real time PCR.</p> <p>Unit III: changed the unit name from “Clinical chemistry to Clinical biochemistry”</p> <p>Removed “Biochemical profile test: liver function test, renal function test, gastric function test, pancreatic function test and endocrine function test”.</p>
	26CCL102	Certificate course on medical laboratory technology Paper II-Clinical Pathology and Microbiology	<p>Unit I Removed the word “and microbiological techniques”.</p> <p>Unit II Changed the sentence from “Systemic grouping of pathogenic bacteria laboratory identification” to “Systemic grouping of pathogenic bacteria and their laboratory identification” Remove “of infectious agents,</p>

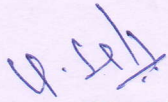
			<p>diagnosis of anaerobic infection, identifying characteristics of common pathogenic bacteria”. Included “Basic diagnostic methods for bacterial infections” Removed the word diagnostic mycology.</p> <p>Unit III</p> <p>Interchanged the word specimen to serum samples. Removed the word “immunologic test for” .</p> <p>Unit IV -fully revamped</p> <p>Unit V -fully revamped</p>
	25CCL1CL	Clinical Biochemistry Practical- I	<p>Biochemistry: Removed “albumin, total lipids, triglycerides, HDL, uric acid, Analysis in CSF: Sugar and protein. Enzymes: SGOT, ALP, LDH, CK, lipase, amylase and choline esterase Hormones: Insulin, TSH, estrogen Electrolytes in serum and urine: Sodium, potassium, chlorides, calcium</p> <p>Included (physical, chemical and microscopic)</p> <p>Microbiology : Removed differential, negative and included Gram</p> <p>Removed Biochemical analysis of microbial strains, identification of pathological organism</p> <p>Clinical pathology : Removed VDRL</p> <p>Added dip stick method in complete urine analysis</p>

Signature of the Board Members

S.No	Name	Designation	Signature
	Chair person Dr.V.Selvi	Associate Professor & Head of the Department	<i>V.Selvi</i> 27/03/2026
	Members of the Faculty 1.Dr.R.T.Narendhirakannan	Assistant Professor	<i>R.T.N.</i> 27/3/26
	2.Dr.K.Nirubama	Assistant Professor	Absent
	3. Dr.M.Santhoshkumar	Assistant Professor	<i>M.S.</i>
	4.Dr.R.Venkatesh	Assistant Professor	<i>R.V.</i> 27/3/26
	Members of Faculty of the Department (PG) 1.Dr.S.Monisha	Assistant Professor & Head (i/c), PG & Research Department of Biochemistry	<i>S.M.</i> 27/3/26
	2.Dr.S.Kavitha	Assistant Professor	<i>S.K.</i> 27/3/26
	University Nominee Dr.S.Selvi	Associate Professor, Department of Biochemistry, Bharathidasan College of Arts and Science, Elispettai, Erode - 638116. Mobile No : 9944555090 Mail id : ramselvister@gmail.com	Attended online Google meet Link : https://meet.google.com/gfw-uopn-met

	<p>Subject Experts</p> <p>1. Dr.R.Kavitha</p>	<p>Professor & Head, Department of Biotechnology, Periyar University, Salem - 636011. Mobile No: 8610075860 Mail id : drkavitha@periyaruniversity.ac.in</p>	
	<p>2. Dr.N.Vijayakumar</p>	<p>Assistant Professor, Department of Biochemistry & Biotechnology, Annamalai University, Annamalai Nagar, Chidambaram – 608002. Mobile no : 9842574258 Mail id : nvkbiochem@yahoo.co.in</p>	<p>Absent</p>
	<p>Alumni Member</p> <p>Dr.K.Rajathi</p>	<p>Professor, Department of Biochemistry, Dr.N.G.P. Arts and Science College, Dr.N.G.P. Nagar, Kalapatti Road, Coimbatore – 641048 Mobile No : 8610960694 Email id : rajathi@drngpasc.ac.in</p>	

	Industrial Member Dr.Saravanan Ganeshan	Director, Nanolab Diagnostic & Biomedical Research centre, 1 st Floor, Kothai Plaza Opp, Murugan Kovil, Salem Main Road, Namakkal – 637001. Mobile no : 9362510010 Mail id : nanolab.nkl@gmail.com	
	Student Nominee (PG) Mr.S.Krishnakumar (21HBC017) 2A2BC003	II M.Sc Biochemistry, Kongunadu Arts and Science College, Coimbatore – 641029.	
	Student Nominee (UG) Mr.M.Sakthi Kumaran (231BC025)	III B.Sc Biochemistry, Kongunadu Arts and Science College, Coimbatore – 641029.	


 Signature of the Chairman of the Board
Dr. V. SELVI, M.Sc., M.Phil., Ph.D.,
Associate Professor & Head
Department of Biochemistry
Kongunadu Arts & Science College
Coimbatore - 641 029