	Dr. N.G.P. ARTS AND SCIENCE COLLEGE (An Autonomous Institution, Affiliated to Bharathiar University, Coimbatore) Approved by Government of Tamil Nadu and Accredited by NAAC A++ Grade (3 rd Cycle- 3.64 CGPA) Dr. N.G.P.-Kalapatti Road, Coimbatore-641048, Tamil Nadu, India Web: www.drn gpasc.ac.in Email: info@drn gpasc.ac.in Phone: +91-422-2369100	BoS
		21st

Department of Clinical Laboratory Technology

Board of Studies Meeting

The minutes of the 21st meeting of Board of Studies held on 02.04.2026 at 10.00 am in the Department of CLT (Room No 1414).

Members Present:

S.No.	Name	Category
1	Dr. S. Kokila	Chairman
2	Dr. S. Selvakumar Assistant Professor, Department of Biochemistry Bharathiar University, Coimbatore	University Nominee
3	Dr. T.M. Kartikeyan Professor, KMCH Institute of Health Sciences & Research, Coimbatore	Subject Expert
4	Dr. Aruna Associate Professor Department of Community Medicine PSGIMSR, Coimbatore	Subject Expert
5	Dr. Meena Mariappan Quality Control Manager Bioline Laboratories Coimbatore.	Industry Expert
6	Ms. S. Shruthi Assistant Professor, SRM Institute of Science and Technology, Trichy	Alumni
7	Dr. M. Thiruselvi	Member
8	Dr. S. Sasikala	Member
9	Ms. K. Rasika	Member
10	Ms. Manimegalai. G III B.Sc. CLT Dr. N. G.P. Arts and Science College Coimbatore	Student Representative

The HoD and Chairman of the department of Clinical Laboratory Technology welcomed and introduced all the members and requested them for their support and contribution for the development of academic standard and enrichment of the syllabus.

After brief discussion, the items of the agenda were taken one by one for discussion and the following resolutions were passed.

Item 21.1: *To review and approve the minutes of the previous meeting held on 10.11.2025.*

The Chairman of the Board presented the minutes of the previous meeting held on 10.11.2025 and requested the members to approve. After brief discussion the following resolution was passed.

Resolution:

Resolved to approve the minutes of the previous meeting held on 10.11.2025.

Item 21.2: *To consider and approve the scheme and syllabi for V semester for the students admitted during the academic year 2024-25.*

The chairman presented the syllabi for semester V for the students admitted during the academic year 2024-25.

Course Code	Course	Changes and Reason
24CLU5CP	Core Practical – V: Hematological Techniques	Board members recommended to <ul style="list-style-type: none"> include of blood sample handling protocol to emphasize the quality control in preanalytical phase. add the peripheral smear procedure along with platelet counting experiment to ensure the accuracy of clinical diagnosis.
24CLU5DB	DSE-I: Human Genetics and Foetal Medicine	<ul style="list-style-type: none"> Subject expert Dr. Aruna suggested to incorporate Triple marker test under pregnancy complications in Unit V, since the topic is significant to assess the risk of chromosomal abnormalities and neural defects in fetus.
24CLU5DC	DSE-I: Clinical Enzymology	<ul style="list-style-type: none"> The Board suggested to include CK-MB under enzyme markers for heart diseases in Unit V and Gamma glutamyl transferase under liver disease, to rename Serum enzymes in GI Tract diseases to Serum enzymes in Pancreatitis
24CLU5GA	GE- Concepts of Health	<ul style="list-style-type: none"> The Board recommended the inclusion of a Unit on Health and Wellbeing, covering topics such as

		addiction, stress, and stress management, to help students cope effectively with academic demands and promote overall physical and mental wellbeing.
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After discussion the following resolution was passed.

Resolution:

Resolved to approve the above modifications and adopt the revised syllabi for students admitted during the academic year 2024-25.

Item 21.3: *To consider and approve PG Diploma in Clinical Laboratory Techniques offered during the academic year 2026-27.*

The Chairman presented the detailed scheme and syllabi for PG Diploma in Clinical Laboratory Techniques to be offered for the students admitted during the academic year 2026-27.

Resolution:

Resolved to approve the syllabi of PG Diploma in Clinical Laboratory Techniques for the academic year 2026-2027.

Item 21.4: *To approve the panel of examiners for question paper setting and evaluation of answer scripts for odd semester during the academic year 2026-2027.*

The chairman presented the panel of examiners for question paper setting, question paper scrutiny and conduct of practical and theory examinations for odd semester during the academic year 2026-2027

Resolution:

Resolved to approve the panel of examiners for question paper setting and evaluation of answer scripts for the odd semester during the academic year 2026-2027.

Item 21.5: *To consider and approve any other item brought forward by the Chairman and the members of the board.*

Skill-based training on Automation and AI in diagnostic laboratory in addition to existing internship at KMCH hospitals to be provided for the students in order to achieve competent skills essential for employment as medical laboratory technicians in multispecialty hospitals.

After discussion the following resolution was passed.


Resolution:

Resolved to approve the above suggestion to offer skill-based training for students during

the academic year 2026-27.

Finally, the chairman thanked all the members for their co-operation and contribution in enriching the syllabus with active participation in the meeting and sought the same spirit in the future also. The meeting was closed with formal vote of thanks proposed by Dr. S. Kokila, Head and Chairman - Clinical Laboratory Technology.

Date: 02.04.2026



(Dr. S. Kokila)

HoS Chairman/HoD
Department of Clinical Laboratory Technology
Dr. K. G. P. Arts and Science College
Coimbatore – 641 048

Syllabus Revision

Faculty: Bio Sciences

Board: Clinical Laboratory Technology

Semester: V

Course Code/ Name: 24CLU5CP

Core Practical-V: Hematological Techniques

Existing	Changes
1 Hemoglobin estimation by Cyanmethemoglobin method. 2 Total R.B.C count and W.B.C count 3 Differential W.B.C Count. 4 Platelet count 5 Absolute Eosinophil and Reticulocyte count. 6 Bleeding time, clotting time, PT and aPTT Tests. 7 ABO blood grouping and Rh titre 8 Preparation of blood smears and staining with Leishman's stain 9 Preparation of Buffy coat smears 10 Packed cell volume- Wintrobe's method 11 Erythrocytes sedimentation rate- Westergren method. 12 Osmotic fragility tests, Sickling test.	Sample handling protocol Peripheral smear in platelet counting

PERCENTAGE OF SYLLABUS REVISED: 20%

COURSE FOCUS ON:

✓	Skill Development	✓	Entrepreneurial Development
✓	Employability	✓	Innovations
	Intellectual Property Rights		Gender Sensitization
	Social Awareness/ Environment		Constitutional Rights/ Human Values/ Ethics

Syllabus Revision

Faculty: Bio Sciences

Board: Clinical Laboratory Technology

Semester: V

Course Code/ Name: 24CLU5DB

DSE-I: Human Genetics and Foetal Medicine

Unit	Existing	Changes
I	Model Organisms in Genetic Analysis Model systems in Genetic Analysis: Bacteriophage –Lytic and Lysogenic cycle, E. coli – Fission and Conjugation, Yeast, Maize, Drosophila, Rattus albicans, Homo sapiens - General outline of life	

	cycle and importance in Genetic analysis	
II	Introduction to Genetics Principle of Genetic Transmission – Indian Knowledge System: Holistic Inheritance Principle, Gene, Mendel’s Laws - Laws of inheritance, Concept of dominance, Law of segregation, independent assortment, Chromosome theory of inheritance, Allelic and Non-allelic interactions: Concept of alleles, Types of dominance with example, Alleles types, Test of allelism- Compliment Test and Epistasis.	
III	Linkage Concepts of linkage, recombination, gene mapping in prokaryotes and eukaryotes, Sex-linked inheritance: Conceptual basis, sex influenced traits, mechanism of sex determination in Drosophila and Human. Quantitative inheritance – Concept, Genes and Environment - heritability, penetrance, and expressivity.	
IV	Embryology and Foetal Development General embryology –Sperm and Ovum, Ovulation to implantation – Zygote formation, Development of amniotic sacs, Placenta and Membranes, Placental and Cord blood components, Development of main organ systems, Teratogens - Mechanism of teratogenesis, Types of teratogens and its effects.	
V	Multiple pregnancies and antenatal complications Twins (Homo and heterozygous), Triplets and more, Inherited antenatal complications – Down Syndrome, Tay–Sachs disease, Anomaly scan, IUF death. Perinatal infectious diseases – Toxoplasmosis, CMV, Herpes, HBV, HIV, HPV, Rubella, streptococcal infection and syphilis.	Triple marker test

PERCENTAGE OF SYLLABUS REVISED: 2%

COURSE FOCUS ON:

✓	Skill Development	✓	Entrepreneurial Development
✓	Employability		Innovations
	Intellectual Property Rights		Gender Sensitization
	Social Awareness/ Environment		Constitutional Rights/ Human Values/ Ethics

Syllabus Revision

Faculty: Bio Sciences

Board: Clinical Laboratory Technology

Semester: V

Course Code/ Name: 24CLU5GA

GE- Concepts of Health

Unit	Existing	Changes
I	<p>Health and Obesity Health- Definition, Health and quality of life, Hygiene. Food factors for human beings and their requirements. Calorific value of food. Obesity: Definition and classification, Genetic and environmental factors leading to obesity, Obesity related diseases.</p>	
II	<p>Diabetes Diabetes: Normal level of Blood sugar, types of Diabetes mellitus, GTT, HbA1c, Insulin and Glucagons, Etiology and pathogenicity, Diabetic insipidus, Management of diabetes.</p>	<p>Communicable Disease Definition-Common Types of Communicable Disease- Viral Infection- COVID-19, Influenza- Bacterial Infection- Tuberculosis, Typhoid- Fungal Infection- Ringworm, Parasitic Infection- Malaria</p>
III	<p>Cardiac diseases Cardiovascular diseases: Reference level of Lipid profile, Cholesterol and Lipoproteins, Types of Cardiac diseases- Myocardial infarction- Signs and Symptoms, Risk factors.</p>	<p>Non-Communicable Disease Definition-Diabetes Mellitus - Causes, Symptoms and Management, Cardiac Disease - Causes, Symptoms and Management, Cancer – Types, Food habits and its preventive measures.</p>
IV	<p>Kidney stones and cancer Kidney Stones – Types of kidney stones and factors causing kidney stones, Diet and Prevention. Cancer – Types, Food habits and its preventive measures.</p>	<p>Health and Wellbeing Introduction to Addiction – Types, causes and effects. Stress – Causes, types, Physiological and psychological effects of stress, Stress management techniques, Role of education and awareness.</p>
V	<p>Health Insurance Health Insurance: Different types of health insurance policy, Individual, family mediclaim policy, domiciliary hospitalization, Group Mediclaim Policy, health insurance for senior citizens, Government and private policies.</p>	

PERCENTAGE OF SYLLABUS REVISED: 30%

Syllabus Revision

Faculty: Bio Sciences
Semester: V

Course Code/ Name: 24CLU5DC

Board: Clinical Laboratory Technology

DSE-I: Clinical Enzymology

Unit	Existing	Changes
I	<p>Enzymes Introduction to enzymes: nomenclature, classification and characteristics of enzymes, enzyme specificity, activators, inhibitors, active site, metalloenzymes, isozymes and multienzyme complexes, units of enzyme activity, factors affecting enzyme activity, measurement of enzyme activity.</p>	–
II	<p>Coenzymes Coenzymes - prosthetic group, classification - vitamin and nonvitamin coenzymes, thiamine pyrophosphate, FMN and FAD - flavoprotein enzymes, NAD and NADP role in enzyme catalysis, PALP and PAMP, coenzyme A, biotin, folate coenzymes, coenzyme vitamin B12, Cofactors and prosthetic group</p>	–
III	<p>Clinical Enzymes Clinical Enzymology - functional plasma enzymes and nonfunctional plasma enzymes. Sources of non-functional plasma enzymes. The medical importance of non-functional plasma enzymes. Diagnostic precision of plasma enzyme analysis. Factors affecting results of plasma enzyme assays</p>	–
IV	<p>Therapeutic Uses of Enzymes Therapeutic use of asparaginase, streptokinase. Diagnostic enzymes. Immobilization of enzymes and their applications. Therapeutic uses of Abzymes and Isoenzymes. Isolation and purification of enzymes from liver and blood.</p>	–
V	<p>Diagnostic Enzymology Serum enzymes in heart diseases: CK, CK -MB, LDH, Aspartate aminotransferase, Alanine aminotransferase. Serum enzymes in Liver diseases: SGOT, SGPT, Serum Alkaline phosphatase, GGT. Serum enzymes in Pancreatitis: Amylase, Lipase, Serum enzymes in Muscles diseases: Aldolase, CPK, Serum enzymes in Bone diseases and Enzymes in Malignancy - ALP.</p>	<p>CK -MB GGT Pancreatitis</p>

PERCENTAGE OF SYLLABUS REVISED: 4%

COURSE FOCUS ON:

✓	Skill Development	✓	Entrepreneurial Development
✓	Employability		Innovations
	Intellectual Property Rights		Gender Sensitization
	Social Awareness/ Environment		Constitutional Rights/ Human Values/ Ethics



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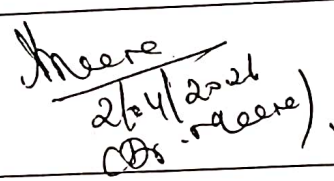

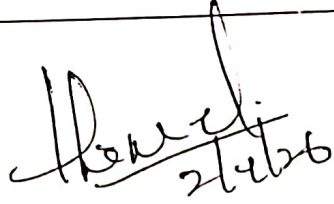
APPROVAL

AY 2026-27

ATTENDANCE OF THE TWENTY-FIRST BOARD OF STUDIES MEETING

Faculty: Biosciences

Board: Clinical Laboratory Technology

S. No.	Name	Position	Signature
1	Dr.S.Kokila Associate Professor & Head Department of Clinical Lab Technology Dr. N. G. P. Arts and Science College, Coimbatore	Chairman	 2/4/26
2	Dr. S.Selvakumar Assistant Professor Department of Biochemistry Bharathiar University, Coimbatore.	Member (Subject Expert) VC Nominee	 2/4/26
3	Dr. T.M. Kartikeyan Professor, Department of Pathology KMCH Institute of Health Sciences & Research, Coimbatore - 641 014.	Member (Subject Expert)	 2/4/26
4	Dr. Aruna Associate Professor Department of Community Medicine PSGIMSR, Coimbatore	Member (Subject Expert)	 2/4/26
5	Dr. Meena Mariappan Quality Control Manager Bioline Laboratories Coimbatore.	Member (Industry Expert)	 2/4/2024 (Dr. Meena)
6	Ms. S. Shruthi Assistant Professor SRM Institute of Science and Technology Trichy	Alumni	 2/4/26
7	Dr.M.Thiruselvi Associate Professor Dept of CLT Dr.N.G.P.Arts and Science College Coimbatore	Member	 2/4/26

8	Dr.S.Sasikala Associate Professor Dept of CLT Dr.N.G.P.Arts and Science College Coimbatore	Member	<i>S.Sasikala</i> 2/4/26
9	Ms. Rasika.K Assistant Professor Dept of CLT Dr.N.G.P.Arts and Science College Coimbatore	Member	<i>Rasika.K</i> 2/4/26
10	Ms. Manimegalai. G III B.Sc CLT Dr.N.G.P.Arts and Science College Coimbatore	Student Representative	<i>G.Manimegalai</i>

Date: 02.04.2026

Board Chairman

J. N. Kokila
2/4/26
(Dr.S.Kokila)

BoS Chairman/HoD
Department of Clinical Laboratory Technology
Dr. N. G. P. Arts and Science College
Coimbatore - 641 048