

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 (3rd Cycle- 3.64 CGPA)
Dr. N.G.P.-Kalapatti Road, Coimbatore-641048, Tamil Nadu, India
Web: www.dmgpsc.ac.in | Email: info@dmgpasc.ac.in | Phone: +91-422-2369100

BoS

19th

Department of Clinical Laboratory Technology

Board of Studies Meeting

The minutes of the 19th meeting of Board of Studies held on 28.06.2025 at 10.00 am at 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. V. Aruna 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	Meritorious Alumni
7	Dr. M.Thiruselvi	Member
8	Dr. S.Sasikala	Member
9	Ms.K.Rasika	Member
10	Dr. A. Hazel Verbina	Co-opted Member
11	Dr. N. Kuppuchamy	Co-opted Member
12	Dr. J. Rengaramanujam	Co-opted Member
13	Dr. D. Sridevi	Co-opted Member
14	Ms. Manimegalai. G	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 19.1: *To review and approve the minutes of the previous meeting held on 08.11.2024.*

The chairman of the Board presented the minutes of the previous meeting held on 08.11.2024 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 08.11.2024.

Item 19.2: *To consider and approve the scheme and syllabi for III semester for the students admitted during the academic year 2024-2025.*

The chairman presented the syllabi for semester III for the students admitted during the academic year 2024-25. The members unanimously decided to retain the existing syllabi of 2023-24 batch without any modification

Resolution:

Resolved to approve the syllabi for the students admitted during the academic year 2024-2025.

Item 19. 3: *To consider and approve the syllabi for V Semester for the students admitted during the academic year 2023-24.*

The chairman presented the detailed syllabi of V Semester for the students admitted during the academic year 2023-24. The members deliberated in detail about the modification required. After discussion it is unanimously decided to adopt the following changes.



Changes Made:

Course Code	Course Code	Change and Reason
233CL1A5CB	Core: Hematology	As Artificial intelligence technologies are increasingly integrated into health research and practice, Dr. Karthikeyan suggested to include Artificial Intelligence in diagnosis of hemoglobinopathies and AI integrated with cell count analyzers in Unit V
233CL1A5DB	DSE- Human Genetics and Foetal Medicine	Dr. Meena suggested to add Principle of Genetic Transmission – Indian Knowledge System: Holistic Inheritance to establish the significance of Indian Knowledge systems in the contemporary world and for systematic study. Dr. Aruna insisted to include the text book Sumithra Bachani and Manish Kumar, 2024. Fetal Medicine and Genetics, Jaypee Brothers Medical Publishers under reference.

After discussion the following resolution was passed.

Resolution:

Resolved to approve the above modification and adopt the revised syllabi for students admitted during the academic year 2023-2024.

Item 19.4: *To consider and approve PG Diploma in Clinical Laboratory Techniques and Student Skill Development Course to be offered during the academic year 2025-26.*

The Chairman presented the detailed scheme and syllabi for PG Diploma in Clinical Laboratory Techniques to be offered to the students admitted during the academic year 2025-26.

The following Student Skill Development Courses are to be offered during the academic year 2025-26

- Fundamentals of Medical Summarization, Underwriting and medical coding
- Certificate Course on Medical Lab Techniques

Resolution:

Resolved to approve the syllabi of PG Diploma in Clinical Laboratory Techniques and Student Skill Development Courses for the academic year 2025-2026.

Item 19.5: *To approve the panel of examiners for question paper setting and evaluation of answer scripts for the odd semester of the academic year 2025-2026.*

The chairman presented the panel of examiners for question paper setting, question paper scrutiny and conduct of practical and theory examinations are submitted to CoE for exam related work.

Resolution:

Resolved to approve the panel of examiners for question paper setting and evaluation of answer scripts for the odd semester of the academic year 2025-2026.

Item 19.6: *To consider and approve the course offered by NPTEL and get exemption for the course offered in V semester for the students admitted during the academic year 2024-25.*

The chairman presented the detailed syllabus of Immunology for V semester of the students admitted during the academic year 2024-25. After discussion the following resolution was passed.

Resolution:

Resolved to approve the course equivalent to the course offered by NPTEL in V semester for the students admitted during 2024-25.

Item 19.7: *To consider and approve any other item brought forward by the Chairman and the members of the board.*

To open up avenues for placement and entrepreneurship, the board recommended to give case studies and mock audits as a part of discussion and assignment in the applicable courses and integrate mentorship from industry experts to guide students through every critical aspect of strategic entrepreneurship.

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: 28.06.2025


(Dr. S. Kokila)

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



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Syllabus Revision

Faculty: Bio Sciences

Board: Clinical Laboratory Technology

Semester: V

Course Code/ Name: 233CL1A5CB, HEMATOLOGY

Unit	Existing	Changes
I	Blood, Blood collection, Anticoagulants used in Hematology, Normal values in Hematology, Basic Hematological tests: RBC Count, Hemoglobin estimation, Packed cell volume, WBC counts - Total and differential, Absolute eosinophil Count, Platelet count, Erythrocyte sedimentation rate, Reticulocyte count.	
II	Preparation of blood films, Stains used in Hematology, Morphology of red cells, Morphology of Leukocytes and platelets, Bone marrow - Techniques of aspiration, preparation and staining of films, Bone marrow biopsy, Preparation of buffy coat smears.	
III	B12 and folate assay, Serum iron and iron bonding capacity - saturation capacity, Laboratory methods used in the investigation of hemolytic anemias: Osmotic fragility, Investigation of G-6 PD deficiency, Test for sicklin, Estimation on of Hb-F, Hb-A2, Test for auto immune hemolytic anemia - Direct Coombs test, Measurements of abnormal Hb pigments.	
IV	Mechanism of coagulation, Bleeding time and clotting time, Other coagulation studies: PT, aPTT, Mean Prothrombin Time (MPT), International normalized Ratio (INR), Fibrinogen. Assay of clotting factors. Test for blood fibrinolytic activity, fibrinogen mixing study, Prothrombin time, detection of D-dimers, Platelet function tests.	
V	AI tools- Automated ESR, Automated coagulometers, Diagnosis of hemoglobinopathies by HPLC, Hemoglobin electrophoresis, Cell counts (Automated hematology analysers), Organization and quality control in hematology laboratory.	AI tools in diagnosis of hemoglobinopathies

PERCENTAGE OF SYLLABUS REVISED: 5 %

COURSE FOCUS ON:

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



Syllabus Revision

Board: Clinical Laboratory Technology

Faculty: Bio Sciences

Semester: V

Course Code/ Name: 233CL1A5DB

DSE- Human Genetics and Foetal Medicine

Unit	Existing	Changes
I	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	Principle of Genetic Transmission – 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.	Principle of Genetic Transmission – Indian Knowledge System: Holistic Inheritance
III	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	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	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.	

PERCENTAGE OF SYLLABUS REVISED: 12%

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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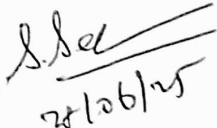




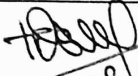
APPROVAL

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ATTENDANCE OF THE NINETEENTH BOARD OF STUDIES MEETING

Faculty: Biosciences

Board: B.Sc. 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	 28/6/25
2	Dr. S.Selvakumar Assistant Professor Department of Biochemistry Bharathiar University, Coimbatore.	Member (Subject Expert) VC Nominee	 28/6/25
3	Dr. T.M. Kartikeyan Professor, Department of Pathology KMCH Institute of Health Sciences & Research, Coimbatore - 641 014.	Member (Subject Expert)	
4	Dr. Aruna Associate Professor Department of Community Medicine PSGIMSR, Coimbatore	Member (Subject Expert)	
5	Dr. Meena Mariappan Quality Control Manager Bioline Laboratories Coimbatore.	Member (Industry Expert)	
6	Ms. S. Shruthi Assistant Professor Abiramai Hospital College of Allied Health Sciences Coimbatore	Alumni	 28/6/25
7	Dr. N. Kuppuchamy Associate Professor & Head Department of Tamil	Co-opted Member	 28/6/25

	Dr. N. G. P. Arts and Science College, Coimbatore		
8	Dr. A.Hazel Verbina Professor & Head i/c Department of English Dr.N.G.P.Arts and Science College Coimbatore	Co-opted Member	<i>[Signature]</i> 28/6/25
9	Dr.J. Rengaramanujam Professor and Head Department of Microbiology Dr.N.G.P.Arts and Science College Coimbatore	Co-opted Member	<i>[Signature]</i> 28/6/25
10	Dr.D.Sridevi Professor and Head Department of Food Science & Nutrition Dr.N.G.P.Arts and Science College Coimbatore	Co-opted Member	<i>[Signature]</i> 28/6/25
11	Dr.M.Thiruselvi Professor, Dept of CLT Dr.N.G.P.Arts and Science College Coimbatore	Member	<i>[Signature]</i> 28/6/25
12	Dr.S.Sasikala Associate Professor, Dept of CLT Dr.N.G.P.Arts and Science College Coimbatore	Member	<i>[Signature]</i> 28/6/25
13	Ms. Rasika.K Assistant Professor Dept of CLT Dr.N.G.P.Arts and Science College Coimbatore	Member	<i>[Signature]</i>
14	Ms. Manimegalai. G III B.Sc CLT Dr.N.G.P.Arts and Science College Coimbatore	Student Representative	<i>[Signature]</i>
15	Ms.Mythili. K.J III B.Sc CLT Dr.N.G.P.Arts and Science College Coimbatore	Student Representative	ABSENT

Date: 28/6/25

[Signature]
28/6/25
Board Chairman
(Dr.S.Kokila)

BoS Chairman/HoD
Department of Clinical Laboratory Technology
Dr. N. G. P. Arts and Science College
Coimbatore - 641 046