



BLDE
(DEEMED TO BE UNIVERSITY)

Choice Based Credit System (CBCS)

Revised Curriculum

M.Sc. Medical Programme
in Anatomy

2025-26

Published by

BLDE

(DEEMED TO BE UNIVERSITY)

Declared as Deemed to be University u/s 3 of UGC Act, 1956, vide notification No. F.9-37/2007-U.3 (A)

The Constituent College

SHRI B. M. PATIL MEDICAL COLLEGE, HOSPITAL & RESEARCH CENTRE, VIJAYAPURA

Smt. Bangaramma sajjan Campus, B. M. Patil Road (Sholapur Road), Vijayapura - 586103, Karnataka, India.

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BLDE

(DEEMED TO BE UNIVERSITY)

Declared as Deemed to be University u/s 3 of UGC Act, 1956

Accredited A Grade by NAAC (Cycle-2)

BLDE(DU)/REG/M.Sc. Med. Curri./2025-26/ **5322**

December 24, 2025

NOTIFICATION

Sub: Revision of Curriculum of M.Sc. Medical Programme in Anatomy, Physiology, Biochemistry, Microbiology & Pharmacology.

Ref: Approval of Hon'ble Vice-Chancellor vide no. 2245 dtd. 24.12.2025

On approval of the Hon'ble Vice-Chancellor, the revised curriculum for M.Sc. Medical Programme in Anatomy, Physiology, Biochemistry, Microbiology & Pharmacology by following the Choice Based Credit System (CBCS) offered under the Faculty of Medicine has been approved and is hereby notified.

The Curriculum shall be effective from the Academic Session 2025-26 onwards, for the M.Sc. Medical Programmes offered under the Shri. B. M. Patil Medical College Hospital & Research Centre.

REGISTRAR
REGISTRAR

BLDE(Deemed to be University)
Vijayapura-586103. Karnataka

Copy to:

- The Secretary, NMC, New Delhi
- The Secretary, UGC, New Delhi
- The Controller of Examinations
- The Principal, SBMPMCH&RC
- The Dean, Faculty of Medicine
- The HoD of Pre & Para Clinical Departments
- The Coordinator, M.Sc. Medical Programmes
- The Co-ordinator/ Director, IQAC
- The Assistant Registrar

Copy respectfully submitted to:

- The Hon'ble Pro-Chancellor
- The Hon'ble Vice-Chancellor

Smt. Bangaramma Sajjan Campus, B. M. Patil Road (Sholapur Road), Vijayapura - 586103, Karnataka, India

BLDE (DU): Phone: +918352-262770, Fax: +918352-263303, Website: www.bldedu.ac.in, E-mail: office@bldedu.ac.in

Vision:

To be a leader in providing quality medical education, healthcare & to become an Institution of eminence involved in multidisciplinary and translational research, the outcome of which can impact the health & the quality of life of people of this region.

Mission:

- To be committed to promoting sustainable development of higher education, including health science education consistent with statutory and regulatory requirements.
- To reflect the needs of changing technology
- Make use of academic autonomy to identify dynamic educational programs
- To adopt the global concepts of education in the health care sector

Goals:

1. The Goals of Postgraduate MSc in Medical Sciences is to produce
2. Competent medical and biomedical teachers with a sound knowledge in basic sciences.
3. Personnel with translational research knowledge
4. Skilled laboratory experts
5. Industry technical experts
6. Competent individuals with emotional intelligence

MSc Medical Anatomy

Objectives

MSc post-graduate in Anatomy should understand the theory and practical aspects of:

1. Acquire in depth knowledge of structure of human body from the gross to the microscopic anatomy level, and correlate it with the functions.
2. Comprehend the principles underlying the structural organization of body and provide anatomical explanations for altered functions.
3. Acquire knowledge of basic principles of normal growth and differentiation. Understand the process of human growth and development of all the organ systems of body. Analyze the congenital malformations and etiological factors including genetic mechanisms involved in abnormal development.
4. Identify, locate and demonstrate surface marking of clinically important structure in the cadaver and correlate it with living anatomy
5. Competently Procure, Embalm and Preserve the human cadavers
6. Acquire mastery in tissue preparation, staining and museum specimens preparation
7. Develop an attitude of scientific enquiry and learn prevailing research methodologies.
8. Conduct research in bio-medical sciences

Programme Outcomes:

After completing the three years of MSc in Medical Anatomy, the post graduate should:

1. Have acquired skills in educating medical and paramedical professionals.
2. Have acquired skills in effectively communicating with the students and colleagues from various medical and paramedical fields.
3. Competently carryout the Body Donation Program, Prepare histology slides and maintain the museum
4. Have acquired qualities of a good teacher capable of innovations in teaching & learning methodology.
5. Competent to work & carry out research to pursue Ph.D

General Objectives:

At the end of the postgraduate training in the discipline concerned the student should be able to:

1. Develop skills in using educational methods and techniques as applicable to the teaching of medical/biomedical/allied health workers.
2. Demonstrate competence in developing diagnostic and analytical tools
3. Demonstrate competence in basic concepts of research methodology and be able to critically analyse relevant published research literature

Components of the course curriculum:

The major components of the Postgraduate curriculum shall be:

- Theoretical knowledge
- Practical skills
- Diagnostic and analytical skills
- Project skills.
- Attitudes including communication skills.
- Training in research methodology.

Self- learning mode- Seminars, assignments, group discussions, journal club presentations, Problem solving exercises.

Regulations**1. Branch of the study**

Post graduate degree Programme

2. Eligibility for Admission

A candidate seeking admission to MSc medical science course must have passed BSc with at least one subject of biological Sciences or BAMS or MBBS or BHMS or BPT or B Pharm or any other Science/ professional graduates from a recognized University.

3. Duration of the course

The duration of the course shall be a period of 3 years (6 semesters)

4. Medium of instruction

The medium of instruction and examination shall be in English.

5. Method of Training

Training includes involvement in theory classes, practical skills, laboratory and experimental work, research studies, Self- learning mode - Seminars, assignments, group discussions, and journal club presentations.

6. Attendance

Candidates should have attended at least 80% of the total number of classes conducted in each semester, from the date of commencement of the term to the last working day, as notified by the BLDE University, in each of the subjects prescribed for that semester, separately in theory and practical, to be eligible to appear for the examinations.

7. Monitoring Progress of Studies:

A. Formative Assessment

Formative assessment will be done continually to assess medical knowledge, procedural & academic skills, interpersonal skills, professionalism, self-directed learning and ability to practice in the system.

Two Internal Assessment tests will be conducted for both theory and practical in each semester covering all domains of learning and feedback will be provided for improvement of the student. Average of two internal assessments in theory and practical's separately will be considered for final internal assessment marks. A candidate should get minimum 50% IA marks separately in theory and practical to be eligible for final BLDE DEEMED TO BE UNIVERSITY examinations.

The candidates who have failed in final examination shall be given an internal assessment improvement test and the best marks shall be submitted to BLDE (DU) when called for.

B. Summative Assessment

The end semester examination for core papers both for theory and practical will be conducted by BLDE (DU) for allied papers, general electives and discipline specific electives examination will be conducted by respective colleges.

C. Project Work

During study period, every candidate must perform a project on the selected topic under the guidance and supervision of a recognized postgraduate teacher. The project should be aimed to train a post graduate student in research methods and techniques. It includes identification of a problem, formulation of a hypothesis, search, and review of literature, getting acquainted with recent advances, designing a research study, collection of data, critical analysis, and comparison of results and drawing conclusions.

The suggested time schedule for project work is:

- Identification and selection of topic for project in third semester.
- Preparation of synopsis and submission of the synopsis for ethical clearance in third semester as per the dates notified by the ethical committee. Such synopsis will be reviewed, and the project topic will be registered by the BLDE (DU). No change in the project topic or guide shall be made without prior approval of the BLDE University.
- Project work should start from third semester onwards.

Submission of Project Report

Four copies of the project report shall be submitted to the controller of examination of the BLDE (DU) two months before sixth semester examination or as per the dates notified by the BLDE (DU).

The Project should be written under the following headings

1. Introduction
2. Aims and objectives of study
3. Review of Literature
4. Material and Methods
5. Results
6. Discussion
7. Conclusion
8. Summary
9. References
10. Tables
11. Annexure

The project shall be valued by examiners appointed by the BLDE (DU) Approval of project work is an essential precondition for a candidate to appear for the final examination.

A co-guide may be included provided the work requires substantial contribution from a sister department or from another medical institution recognized for teaching/training by BLDE (DU).

Project Evaluation: Every semester student shall present the progress of the project and monitored by the respective guide. Project work shall be presented during sixth semester examinations and carries 100 marks.

D. Maintenance of Logbook and Practical record

A diary showing each day's work must be maintained by the candidate, which shall be scrutinized by the Head of the department every month. A list of the seminars and journal reviews that have been attended and presented by the student has to be maintained which should be scrutinized by the Head of the Department.

Practical record must be maintained by every candidate and duly scrutinized and certified by the head of the department and to be submitted to the external examiner during the final examination.

E. Seminars, Journal clubs and Teaching:

Students are expected to actively participate in the departmental seminars and journal clubs. A record should be maintained for each student with the list of seminars and paper presented in journal club by each student.

Post graduate students should participate in undergraduate teaching, in theory, practical and tutorials.

8. Course of study

First and Second semester subjects are common to all medical MSc programmes. Students can choose one among the general electives and discipline specific electives mentioned in the respective semesters.

Course of study: Subjects and hours of teaching for theory, practical and clinical training

First Semester

Core 1: Anatomy I- General anatomy, General histology, musculoskeletal system, CVS & Blood vessels of body, GIT, Renal system

Specific Learning Objectives: During the course of the study students should be able to

1. Describe & demonstrate normal anatomical position, various planes, relation, comparison, laterality & movement in our body.
2. Describe the parts, blood and nerve supply of a long bone.
3. Describe various joints with subtypes and examples.
4. Describe superficial fascia & deep fascia along with fat distribution in body.
5. Describe & differentiate between blood vascular and lymphatic system.
6. Describe & demonstrate respiratory, GIT, and renal system organs with its microscopic structure.

Theory: 60 hours

Unit I: General Anatomy (12 hrs)

General anatomy includes introduction to anatomy, Skeleton system with classification, types of bone, features of long bone, ossification, blood supply, Joints – classification with examples, structure of typical synovial joints, Myology – classification with examples, types of skeletal muscles, tendon, aponeurosis, Nervous system – subdivisions, types of cells in CNS, neuron - structure, types, ganglia and plexuses.

Unit II: General histology (12 hrs)

Microscopic structure of epithelial tissue, Connective tissue, Cartilages, Blood vessels, Nervous tissue, Bone, Muscular tissue, Nervous tissue, lymphoid tissue, salivary glands, Skin

Unit III: Musculoskeletal system (06 hrs)

Introduction to all the bones & muscles of limbs, trunks, head & neck

Unit IV: CVS & Blood vessels of body (12 hrs)

Pericardium, Heart, Blood and Nerve supply of Heart, Blood vessels of limbs, trunks, Head & Neck

Unit V: Gastro Intestinal System (12 hrs)

Gross anatomy & histology of Stomach, Duodenum, Jejunum and Ilium, Cecum and Appendix, Rectum and Anal canal, Spleen, Pancreas, Liver, Extra hepatic biliary apparatus

Unit VI: Renal system (06 hrs)

Gross anatomy & histology of Kidney, Ureter, Urinary bladder

Module I: Anatomy (Practical's): 60 hrs.

- a) Demonstration of bones of limbs (08 hrs)
- b) Demonstration of slides of general Histology and slides of GIT, Liver & gall bladder & renal system (16 hrs)
- c) Demonstration of pericardium & heart (12 hrs)
- d) Demonstration of GIT organs (12)
- e) Demonstration of urinary system organs (12)

Semester I Anatomy
Course Code: MANAT 1.2
Course Contents
Anatomy Theory

SEMESTER I								
Course Code	Course Name Medical Anatomy	Credits	Teaching Hours pe week			Marks		
			L	SDL	P	Internal Assessment	Semester Exam	Total
Theory								
MANA 1.1 T	Medical Anatomy	4	4	1		20	80	100
MPHY 1.2 T	Medical Physiology	4	4	1		20	80	100
MBCHM1.3 T	Medical Biochemistry	4	4	1		20	80	100
Practical								
MANA 1.1P	Medical Anatomy	3			6	20	80	100
MPHY1.2P	Medical Physiology	3			6	20	80	100
MBCHM1.3 P	Medical Biochemistry	3			6	20	80	100
Elective Course (Any One)								
1.4 GE	Introduction to Quality Patient & Safety	3	3			100	--	100
1.5 GE	Computer Application					100	--	100
Total		24	36			220	480	700

Course Code: MANAT 1.2**Course Contents****Anatomy Theory**

SEMESTER II								
Course Code	Course Name	Credits	Teaching Hours Per week			Marks		
			L	SDL	P	Internal Assessment	Semester Exam	Total
Theory								
MANA 2.1	Medical Anatomy	4	4	1		20	80	100
MPHY 2.2	Medical Physiology	4	4	1		20	80	100
MBCHM 2.3	Medical Biochemistry	4	4	1		20	80	100
MCOM 2.4	Research Methodology & Biostatistics	3	3			20	80	100
Practical								
MANA 2.1 P	Medical Anatomy	3			6	20	80	100
MPHY 2.2 P	Medical Physiology	3			6	20	80	100
MBCHM 2.3 P	Medical Biochemistry	3			6	20	80	100
Total		24	36			140	560	700

SEMESTER III						
Course Code	Topics	Credits	Teaching Hours per week	Marks		
				Internal Assessment	Semester Exam	Total
Theory						
MANA 3. 1 T	General Anatomy & Limbs	4	4	20	80	100
MANA 3. 2 T	General Histology, General embryology & Thorax	4	4	20	80	100
MANA 3.3 T	Histotechniques	4	4	20	80	100
Practical						
MANA 3. 1 P	Dissection of limbs & General Histology	3	6	20	80	100
MANA 3. 2 P	Thorax & General embryology	3	6	20	80	100
Elective Course (Any Two)						
3.4 GE	Various methods in Histology techniques	3	3	100	--	100
MANA 3.5 DSE	Embalibing techniques	3	3	100	--	100
3.6 GE	Embriology models	3	3	100	--	100
3.7 GE	Genetics	3	3	100	--	100
Total		24	36	300	400	700

Fourth Semester

SEMESTER IV							
Course Code	Topics	Credits	Teaching Hours per week		Marks		
			SDL		Internal Assessment	Semester Exam	Total
Theory							
MANA 4.1 T	Abdomen: Gross anatomy, Histology & Embryology	4	4	1	20	80	100
MANA 4.2T	Pelvis & Perineum: Gross anatomy, Histology & Embryology	4	4	1	20	80	100
MANA 4.3 T	Embalming, cadaver preservation Techniques & Autopsy postings	4	4	1	20	80	100
Practical							
MANA 4.1 P	Amdomen, Pelivis & Perineum	5	10		20	80	100
Elective Course (Any Two)							
4.4 GE	Basics of Biostatics	1	1		100	--	100
MANA 4.5 DSE	Plastination	3	3		100	--	100
4.6 GE	Human Cytogenetics	3	3		100	--	100
Total		24	32		280	320	600

Semester-V

Course Code MPHY T & P	Topics	Credits	Teaching Hours per weak	Marks		
				Internal Assessment	Semester Exam	Total
Theory						
MANA 5.1	Head & Neck: Gross anatomy, Histology & Embryology	4	4	20	80	100
MANA 5.2	Central nervous system(Gross anatomy, Histology & Embryology) & Anthropometry	4	4	20	80	100
MANA 5.3	Radiology	4	4	20	80	100
Medical Anatomy Practical Course Code: MANA 5.1 P						
MANA 5.2 P	Head & Neck	3	6	20	80	100
MANA 5.3 P	Central nervous system	3	6	20	80	100
Elective Course (Any Two)						
5.4 GE	Skill enhancement	3	3	100	--	100
5.5 GE	Histo technique/ Genetics	3	3	100	--	100
5.6 GE	Meuseum Techniques/special stationing	3	3	100	--	100
Total		24	30	300	400	700

Semester -VI

SEMESTER VI						
Course Code	Topics	Credits	Teaching Hours per weak	Marks		
				Internal Assessment	Semester Exam	Total
Theory						
MANA 6.1 T	Central Nervous System	4	4	20	80	100
MANA 6.2 T	Immunohistochemistry	4	4	20	80	100
MANA 6.3 T	Specialised Integrated Anatomy	4	4	20	80	100
Medical Anatomy Practical Course Code: MANA 6.1 P						
MANA 6.1 P	Central Nervous System	3	6	20	80	100
MANA 6.2 P	Immunohistochemistry	3	6	20	80	100
Elective Course (Any Two)						
MANA 6.3 DSE	Industry exposure report	3	3	100	--	100
6.4 GE	Laboratory accreditation / Cell culture studies	3	3	100	--	100
6.5 GE	Soft skills and data exchange	3	3	100	--	100
6.6 GE	H & E technique	3	3	100	--	100
Total		24	36	300	400	700

First Semester

Core 1: Anatomy I- General anatomy, General histology, musculoskeletal system, CVS & Blood vessels of body, GIT, Renal system

Specific Learning Objectives: During the course of the study students should be able to

1. Describe & demonstrate normal anatomical position, various planes, relation, comparison, laterality & movement in our body.
2. Describe the parts, blood and nerve supply of a long bone.
3. Describe various joints with subtypes and examples.
4. Describe superficial fascia & deep fascia along with fat distribution in body.
5. Describe & differentiate between blood vascular and lymphatic system.
6. Describe & demonstrate respiratory, GIT, and renal system organs with its microscopic structure.

Theory: 60 hours

Unit I: General Anatomy (10 hrs)

General anatomy includes introduction to anatomy, Skeleton system with classification, types of bone, features of long bone, ossification, blood supply, Joints – classification with examples, structure of typical synovial joints, Myology – classification with examples, types of skeletal muscles, tendon, aponeurosis, Nervous system – subdivisions, types of cells in CNS, neuron - structure, types, ganglia and plexuses.

Unit II: General histology (12 hrs)

Microscopic structure of epithelial tissue, Connective tissue, Cartilages, Blood vessels, Nervous tissue, Bone, Muscular tissue, Nervous tissue, lymphoid tissue, salivary glands, Skin

Unit III: Musculoskeletal system (04 hrs)

Introduction to all the bones & muscles of limbs, trunks, head & neck

Unit IV: CVS & Blood vessels of body (10 hrs)

Pericardium, Heart, Blood and Nerve supply of Heart, Blood vessels of limbs, trunks, Head & Neck

Unit V: Gastro Intestinal System (10 hrs)

Gross anatomy & histology of Stomach, Duodenum, Jejunum and Ilium, Cecum and Appendix, Rectum and Anal canal, Spleen, Pancreas, Liver, Extra hepatic biliary apparatus

Unit VI: Renal system (04 hrs)

Gross anatomy & histology of Kidney, Ureter, Urinary bladder

Module I: Anatomy (Practical's):**60 hrs.**

- a) Demonstration of bones of limbs (08 hrs)
- b) Demonstration of slides of general Histology and slides of GIT, Liver & gall bladder & renal system(16 hrs)
- c) Demonstration of pericardium & heart (12 hrs)
- d) Demonstration of GIT organs (12)
- e) Demonstration of urinary system organs (12)

Theory		Hrs	Credits
Core 1	Anatomy I: General anatomy, general histology, Musculoskeletal system, CVS & blood vessels, GIT, Renal system.	60	4
Core 2	Physiology I	60	4
Core 3	General biochemistry	60	4
Practical's			
Module1	Anatomy I: Demonstration of bones of limbs, Demonstration of slides of general Histology and slides of GIT, Liver & gall bladder & renal system, Demonstration of pericardium & heart, Demonstration of GIT organs, Demonstration of urinary system organs	60	3
Module2	Physiology I	60	3
Module3	Basic biochemistry experiments Part I	60	3
Non- Core Subjects			
General Electives	Computer Application Introduction to Quality Patient & Safety	45	3
Total		345	24

Second semester

Theory		Hrs	Credits
Core 4	Anatomy II: General embryology, Respiratory system, Reproductive system, Endocrine & exocrine glands, CNS & nerves of the body, Sensory organs.	60	4
Core 5	Physiology II	60	4
Core 6	Energy metabolism and metabolism of biomolecules	60	4
Practical's			
Module1	Anatomy II: Demonstration of lumbar vertebrae, bony pelvis, Demonstration of slides of Histology of respiratory system, Male & female genital system, sensory system & endocrine glands, Demonstration of organs of respiratory system, Demonstration of genital system, Demonstration of CNS & sensory organs. General embryology models	60	3
Module2	Physiology II	60	3
Module3	Basic Biochemistry Experiments: Part -II	60	3
Non-Core			
General Electives	Computer Application Introduction to Quality Patient & Safety	45	3
Total		405	24

MSc Medical Anatomy

Third semester

Theory		Hrs	Credits
Core A1	General Anatomy & Limbs	60	4
Core A 2	General Histology, General embryology & Thorax	60	4
Core A 3	Histotechniques	60	4
Practical's			
Module A 1	Dissection of limbs & General Histology	60	3
Module A 2	Thorax & General embryology	60	3
Non-Core			
Allied 3	Environmental science	30	2
Gene Electives	Soft skills / Teaching methodology	30	2
Total		360	22

Fourth semester

Theory		Hrs	Credits
Core A 4	Abdomen: Gross anatomy, Histology & Embryology	60	4
Core A 5	Pelvis & Perineum: Gross anatomy, Histology & Embryology	60	4
Core A 6	Embalming, cadaver preservation Techniques & Autopsy postings	60	4
Practical's			
Module B 3	Abdomen	60	3
Module B 4	Pelvis & Perineum	60	3
Non-core			
Allied 4	Biostatistics	30	2
DSE	Plastination / Human Cytogenetics	30	2
Total		360	22

Fifth Semester

Theory		Hrs	Credits
Core A 7	Head & Neck: Gross anatomy, Histology & Embryology	60	4
Core A 8	Central nervous system (Gross anatomy, Histology & Embryology) & Anthropometry	60	4
Core A 9	Radiology Postings	60	4
Practical's			
Module 5	Head & Neck	60	3
Module 6	Central nervous system	60	3
Non – Core			
Skill enhancement	Internship training	30	2
DSE	Museum techniques / Special staining	30	2
Total		360	22

Sixth Semester

Project work	20 credits
Value added programme: Workshops on career -life balance, CV - writing, and interviewing	10 credits
Total	30 credits

Conduct of Examination:

The end semester examination for core papers will be held at the end of each semester for both Theory and Practical separately, conducted by BLDE (DU). Examinations for non- core subjects will be conducted by respective Colleges. Division of marks for non - core paper will vary according to the subjects.

Theory Examination: – 3 hours paper, 100 marks for each core paper.

Pattern of theory question paper

Theory			
Type of Questions	Number of Questions	Marks for each question	Total
Long Essay	3	10	30
Short Essay	10	5	50
Total Marks			80
Internal Assessment			20
Grand Total			100

Examination Pattern:

First Semester - BLDE(DU) Examination				
Theory Examination				
Category	Subjects	IA	Final Exam	Total
Core 1	Anatomy I: General anatomy, General histology, Musculoskeletal system, CVS & Blood vessels of body, GIT, Renal system	20	80	100
Core 2	Physiology I	20	80	100
Core 3	General biochemistry	20	80	100
Practical's				
Module 1	Anatomy I	20	80	100
Module 2	Physiology I	20	80	100
Module 3	General biochemistry	20	80	100
Non -Core subjects				
		Theory	Practical	Total
Gen Electives	Yoga/Music	25	25	50

Second Semester - BLDE(DU) Examination				
Theory Examination				
Category	Subjects	IA	Final Exam	Total
Core 4	Anatomy II: General Embryology & Genetics, Respiratory system, Reproductive & Genital system, Endocrine and Exocrine glands, CNS & Nerves of the body & Sensory organs	20	80	100
Core 5	Physiology II	20	80	100
Core 6	Energy metabolism and metabolism of biomolecules	20	80	100
Practical's				
Module 1	Anatomy II	20	80	100
Module 2	Physiology II	20	80	100
Module 3	Basic Biochemistry Experiments: Part -II	20	80	100
Non - Core subjects				
		Theory	Practical	Total
Gen Electives	Humanities/ Health economics	50	--	50

MSc Medical Anatomy

Third Semester- BLDE (DU) Examination				
Theory Examination				
Category	Subjects	IA	Final Exam	Total
Core A1	General Anatomy & Limbs	20	80	100
Core A2	General Histology, General embryology & Thorax	20	80	100
Core A3	Histotechniques	---	---	---
Practical				
Module A 1 & A 2	Dissection of limbs & Thorax, General Histology, Histotechniques & Embalming	20	80	100
Non -Core subjects				
		Theory	Practical	Total
Allied 1	Research methodology & Bioethics	50	---	50
Gene Electives	Soft skills / Teaching & Learning methodology	50	---	50

- There will be no separate examination for Core A3 – Histotechniques.
- 10-15% of questions in theory paper of Core A1 shall be from histotechniques training material.

Fourth Semester - BLDE (DU) Examination				
Theory Examination				
Category	Subjects	IA	Final Exam	Total
Core A4	Abdomen: Gross anatomy, Histology & Embryology	20	80	100
Core A5	Pelvis & Perineum: Gross anatomy, Histology & Embryology	20	80	100
Core A6	Embalming, cadaver preservation Techniques & Autopsy postings	---	---	---
Practical's				
Module A 3 & A4	Clinical experiments – I & Clinical experiments - II	20	80	100
Non -Core subjects				
		Theory	Practical	Total
Allied 2	Biostatistics	50	---	50
DSE	Plastination/ Human Cytogenetics	50	---	50

- There will be no separate examination for Core A6 – Embalming, Cadaver preservation techniques.
- 10-15% of questions in theory paper of Core A5 shall be from Embalming, cadaver preservation Techniques & Autopsy postings training

Fifth Semester - BLDE (DU) Examination				
Theory Examination				
Category	Subjects	IA	Final Exam	Total
Core A 7	Head & Neck: Gross anatomy, Histology & Embryology	20	80	100
Core A 8	Brain: Gross anatomy, Histology & Embryology	20	80	100
Core A 9	Radiology Postings	---	---	---
Practical's				
Module A5 & A6	Head & Neck, Brain	20	80	100
Non -Core subjects				
		Theory	Practical	Total
Skill enhancement	Industry exposure report	---	---	50
DSE	Laboratory accreditation / Cell culture studies	50	---	50

- There will be no separate examination for Core A9 - Radiology postings.
- 10-15% of questions in theory paper of Core A8 shall be from Radiology training material.

Medical Anatomy: Sixth semester

Category	Marks
Projectwork	100
Subject Viva Voce	70
Pedagogy	30

10. Appointment of examiners:

There shall be at least two examiners in theory and practical examination. Any staff with MD or MSc, PhD degree with 3 years of teaching experience is eligible to become examiners.

11. Criteria for declaring as pass in BLDE (DU) examination

Candidate should secure minimum 50% marks in each subject Theory including IA marks and Practicals including IA Marks separately to declare pass both in core and non – core papers.

Theory and Practical shall be considered as separate course. If a candidate passes in practical examination but fails in theory paper, such candidate is exempted from reappearing for practical but shall have to appear for theory paper in which subject paper candidate in has failed the subsequent examinations or vice versa. Those candidates who failed in one or more subjects shall have to appear only in the subject so failed, in the subsequent examinations

A candidate securing less than 50% of marks as described above shall be declared to have failed in the examination. Failed candidate may appear in subsequent examination upon payment of examination fee to the BLDE (DU)

12. Grading of performances

Letter grades and grade points allocations:

Based on the performances, each student shall be awarded a final letter grade at the end of the semester for each course.

Letter grades and grade points equivalent to Percentage of marks and performances

Percentage of Marks Obtained	Letter Grade	Grade Point	Performance
90.00 – 100	O	10	Outstanding
80.00 – 89.99	A	9	Excellent
70.00 – 79.99	B	8	Good
60.00 – 69.99	C	7	Fair
50.00 – 59.99	D	6	Average
Less than 50	F	0	Fail
Absent	AB	0	Fail

A learner who remains absent for any subject(s) in the end semester examination shall be assigned a letter grade of AB and a corresponding grade point of zero. He/ she should reappear for the same in due course.

The Semester grade point average (SGPA) Computation of SGPA and CGPA

The performance of a student in a semester is indicated by a number called 'Semester Grade Point Average' (SGPA). It is the ratio of total credit points secured by a student in various courses in a semester and the total course credits of that semester. It shall be expressed up to two decimal places. The credit point (CP) of a course is equal to Credits (C) x Grade Point (G). Total Credit Point of a semester is sum of credit points (CP) of all courses of that semester.

Thus the SGPA is the ratio of sum of the product of the number of credits with the grade points scored by a student in all the courses in a semester and the sum of the number of credits of all the courses in that semester, i.e

$$SGPA = \sum(C_i \times G_i) / \sum C_i$$

Where C_i is the number of credits of the i^{th} course and G_i is the grade point scored by the student in the i^{th} course.

For example, if a student takes five courses (Theory/Practical) in a semester with credits C_1, C_2, C_3, C_4 and C_5 and the student's grade points in these courses are G_1, G_2, G_3, G_4 and G_5 , respectively, and then students' SGPA is equal to:

$$SGPA = \frac{C_1G_1 + C_2G_2 + C_3G_3 + C_4G_4 + C_5G_5}{C_1 + C_2 + C_3 + C_4 + C_5}$$

The SGPA shall be expressed up to two decimal places. The SGPA for each semester shall be calculated and awarded only for those students who have passed all the courses of that semester.

Cumulative Grade Point Average (CGPA)

It is a measure of overall cumulative performance of a student over all semesters. The CGPA is the ratio of total credit points secured by a student in various courses in all semesters and the sum of the total credits of all courses in all the semesters. It is expressed up to two decimal places. CGPA shall be awarded only on successful completion of the programme (all eight semesters) and it is given in final semester grade report card/final transcript.

CGPA shall be calculated as follows:

$$CGPA = \frac{CP_1 + CP_2 + CP_3 + CP_4 + CP_5 + CP_6}{C_1 + C_2 + C_3 + C_4 + C_5 + C_6}$$

Where CP_1, CP_2, CP_3, \dots is the total credit points for semester I, II, III, and C_1, C_2, C_3 is the total number of credits for semester I, II, III,

Illustration of Computation of SGPA and CGPA

Course	Credit	Grade Letter	Grade Point	Credit Point (Credit x Grade)
Course 1	3	A	8	3 X 8 = 24
Course 2	4	B+	7	4 X 7 = 28
Course 3	3	B	6	3 X 6 = 18
Course 4	3	O	10	3 X 10 = 30
Course 5	3	C	5	3 X 5 = 15
Course 6	4	B	6	4 X 6 = 24
	20			139
Illustration for SGPA Thus, SGPA = $139/20 = 6.95$				

Semester 1	Semester 2	Semester 3	Semester 4
Credit : 20 SGPA : 6.9	Credit : 22 SGPA : 6.8	Credit : 25 SGPA : 6.6	Credit : 26 SGPA : 6.0
Semester 5	Semester 6		
Credit : 26 SGPA : 6.3	Credit : 25 SGPA : 8.0		
Illustration for CGPA			

10. Declaration of class

Class shall be awarded only on successful completion of the programme (all eight semesters) and it is given in final semester grade report card/final transcript. The class shall be awarded on the basis of CGPA as follows:

First Class with Distinction	=	CGPA of. 8.00 and above
First Class	=	CGPA of 7.00 to 7.99
Second Class	=	CGPA of 6.00 to 6.99

The candidates who secure a CGPA of 8.00 or above and have passed in all the subjects in all the semesters in first attempt shall be declared to have obtained First Class with Distinction.

14. Carry over system:

A candidate who has failed in one or more subject in the First semester BLDE (DU) examinations can be permitted to enter II semester and so on. However, candidate should have passed BLDE (DU) examinations of all core and non- core papers from first to fifth semester to appear for Sixth semester examinations.

15. Award of Degree: A candidate who has passed all the subjects of I semester to VI Semester shall be eligible for award of Degree

16. Award of Ranks/Medals: Ranks and medals shall be awarded on the basis of final CGPA. However candidates who fail in one or more courses during the programme shall not be eligible for the award of ranks.

17. Duration for completion of the course of study

The duration for the completion of the course shall be fixed as double the actual duration of the course and the students have to pass within the said period, otherwise they have to get fresh Registration.

18. Revaluation / Retotaling of answer papers

There is no provision for revaluation of the answer papers of failed candidates in any examination. However, the failed candidates can apply for retotaling.

19. Re-admission after break of study

Candidate who seeks re-admission to the course after break of study has to get the approval from the BLDE (DU) by paying a condonation fee.

No condonation is allowed for the candidate who has more than 2 years of break up period and he/she have to rejoin the course by paying the required fees.

RECOMMENDED TEXT BOOKS

Gross Anatomy:

Dissection manual

1. Gray's Anatomy 40th Edition
2. Text book of Human Anatomy by BD Chaurasia- 9th Edition
3. Dutta A.K. Essential Human Anatomy 6th edition
4. Text book of anatomy by Vishram singh 4th edition
5. Frank H. Netter. Atlas of Human Anatomy. Saunders Elsevier. Revised ed
6. Embalming. principles and legal aspects by M L Ajmani 2nd edition

Histology:

1. Di Fiore's. Atlas of histology with functional co-relation. 10th edition
2. Text book of histology by Inderbir Singh 9th edition
3. Text book of human histology Sontakke
4. Principles and techniques of histology by D R Singh. 2nd edition
5. Clinical Neuroanatomy by Kanchan Kapoor 12th edition

Genetics:

1. Medical genetics by SD GANGANE
2. Introducing Genetics by Thomas, Alison. 2nd edition

Embryology:

1. Human Embryology by INDERBIR SINGH 14th edition
2. Text book of embryology Sontakke, Yogesh 3rd edition