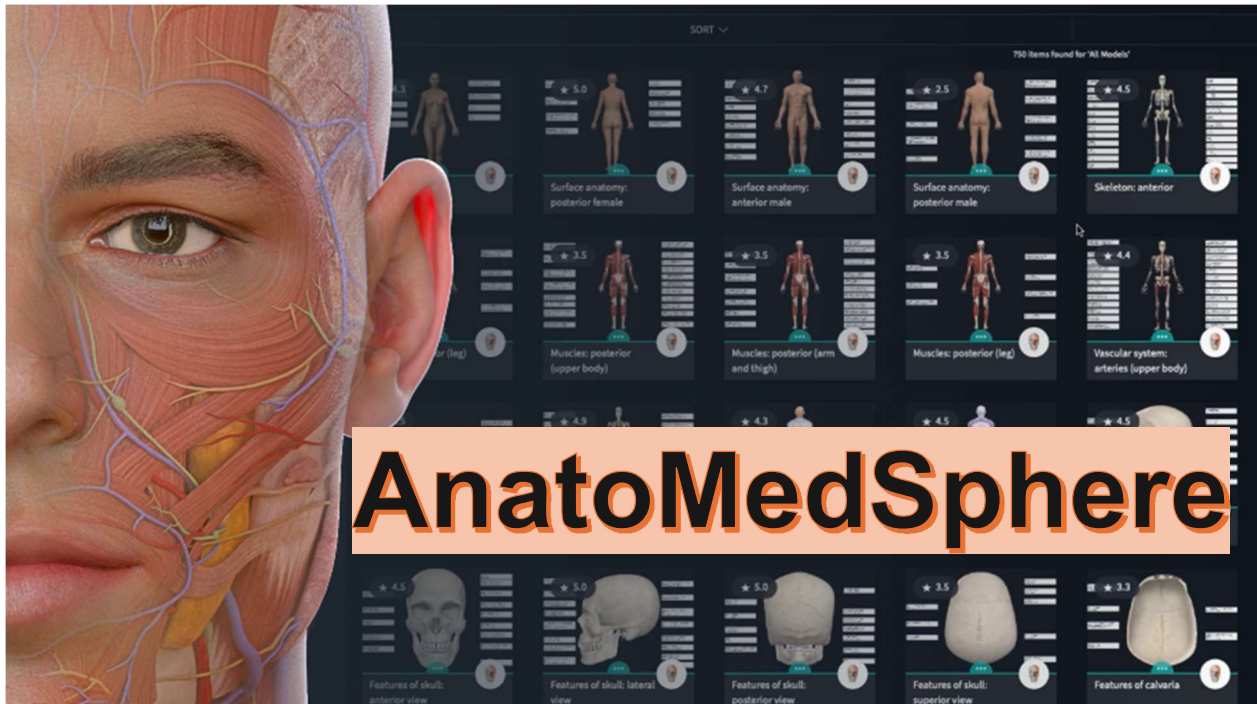




Rawalpindi Medical University Department of Anatomy



Objective Structured Video Curriculum 1st & 2nd Year MBBS 2025

Vision

This curriculum is designed to revolutionize anatomical education for undergraduate MBBS students through a multimodal, interactive, and clinically integrated video library. By harnessing the power of 3D and cross sectional visualization, histological and embryological animations, and real-life clinical correlations, this resource aims to enhance spatial understanding, foster active learning, and bridge the gap between preclinical and clinical knowledge. Our vision is to create a dynamic, accessible, and self-paced learning environment that supports competency-based education, facilitates audiovisual OSPE (AVOSPE) assessments, and empowers future healthcare professionals with a deep and applied understanding of human anatomy.



Professor Ayesha Yousaf
Professor / HOD Anatomy
Dean Basic Sciences
Rawalpindi Medical University

Table of content

S No.	Content	Page no
1.	Introduction	4
2.	Outcomes	5
3.	Competencies	6-10

1st Year MBBS Modules

S No.	Module Name	Page no
4.	Foundation Module	11
5.	Musculoskeletal Module-I (MSK-I)	12
6.	Musculoskeletal Module-II (MSK-II)	13
7.	Hematology and Immunology Module	14
8.	Cardiovascular System Module (CVS)	15-18
9.	Respiratory Module	19-20

2nd Year MBBS Modules

S No.	Module Name	Page no
1.	Gastrointestinal Tract Module (GIT)	21-22
2.	Renal Module	23
3.	Reproduction Module	24-25
4.	Central Nervous System Module (CNS)	26-27
5.	Special Senses Module	28
6.	Endocrinology Module	29-30

Introduction

The Anatomy Video Library Curriculum is a pioneering initiative designed to enhance undergraduate MBBS students' understanding of human anatomy through a modular, clinically integrated, and multimodal learning approach. Covering gross anatomy, histology, and embryology, this resource supplements traditional dissection and cadaveric study, helping students build strong clinical foundations. Aligned with Professor Muhammad Umar's vision of Digital Literacy as an essential competency for future doctors, this curriculum empowers students with self-directed learning tools, ensuring accessibility beyond the classroom. The videos can be accessed through the Digital Corner in the Anatomy Museum and via online links, providing flexibility for students to revisit complex topics at their own pace. Furthermore, this curriculum plays a key role in assessment, as it is integrated into audiovisual OSPE (AVOSPE) stations within continuous internal assessments during end-of-module examinations.

By bridging the gap between theoretical knowledge and clinical application, the Anatomy Video Library Curriculum fosters a deeper, more practical understanding of human structure, preparing students for their future clinical roles.



Digital Corner
Anatomy Museum
Main Campus RMU

Outcomes

Upon utilizing the Anatomy Video Library Curriculum, students will be able to:

1. Visualize Complex Anatomical Structures

Develop a clear spatial understanding of gross anatomy, histology, and embryology through high-quality videos.

2. Bridge Preclinical and Clinical Learning

Relate anatomical knowledge to clinical scenarios, imaging, and surgical applications.

3. Enhance Self-Directed Learning

Access videos independently via the Digital Corner and online links, allowing for flexible and personalized learning.

4. Improve Retention and Recall

Reinforce key anatomical concepts through multimodal exposure, supplementing traditional cadaveric study.

5. Prepare for AVOSPE Assessments

Develop observational and analytical skills necessary for audiovisual OSPE stations in internal module examinations.

6. Strengthen Clinical Reasoning

Understand the anatomical basis of diseases, surgical procedures, and radiological interpretations.

7. Develop Digital Literacy

Engage with digital learning resources as part of modern medical education, aligning with the evolving competencies of 21st-century doctors.

Competencies

Competencies in Embryology and Developmental Anatomy

1. Knowledge

- Describe the stages of human development from fertilization to the formation of the placenta.
- Explain the process of organogenesis and the development of various systems in the body (e.g., cardiovascular, nervous).
- Recognize key developmental milestones and the formation of primary and secondary body structures.
- Understand and explain the concept of teratology and its relevance to abnormal development.
- Understand the basis of congenital malformations and their relationship to genetic, environmental, and maternal factors.

2. Skills

- Identify the major stages of development on diagrams and models (e.g., fertilization, early embryonic stages, development of the placenta).
- Correlate embryonic development with gross anatomical features in adult structures.
- Perform a detailed description of the structure of the placenta and its functions in fetal development.
- Demonstrate knowledge of the clinical importance of developmental anomalies in the context of various congenital conditions.

3. Attitudes

- Show respect for human developmental biology and its clinical relevance.
- Be aware of the ethical considerations involved in studying embryology.

Competencies in Histology and Tissue Types

1. Knowledge

- Describe the general features of the different types of tissues: epithelial, connective, muscle, and nervous tissue.
- Understand the basic structures of each tissue type and their respective functions in the human body.
- Recognize the cellular structure and function of various tissues in the body through histological examination.

- Understand the concept of histopathology and its role in identifying diseases at the cellular level.
- 2. Skills**
- Identify and describe histological slides of different tissue types (cells, muscle, connective tissue).
 - Distinguish between different subtypes of muscle tissues (skeletal, smooth, cardiac) based on histological features.
 - Identify connective tissues, including cartilage, bone, and blood, and understand their functions in the body.
 - Analyze and interpret histological features in the context of normal and pathological conditions.
- 3. Attitudes**
- Develop an appreciation for the importance of histology in understanding anatomy and pathology.
 - Demonstrate careful attention to detail in identifying tissues and structures in histological samples.

Competencies in Gross Anatomy

1. Upper Limb Anatomy

1. Knowledge

- Identify and describe the bones, muscles, nerves, and blood vessels of the upper limb.
- Understand the functional anatomy of the upper limb and its importance in movement.
- Learn the anatomy of the shoulder, arm, forearm, and hand in detail, and understand their clinical relevance.

2. Skills

- Demonstrate the ability to identify the bones, muscles, and neurovascular structures of the upper limb on cadavers and models.
- Perform relevant clinical procedures (e.g., brachial pulse, blood pressure measurement) and identify key anatomical landmarks.
- Apply knowledge of upper limb anatomy in diagnosing common clinical conditions (e.g., fractures, nerve injuries).

3. Attitudes

- Demonstrate a sense of responsibility and ethical sensitivity in handling cadaveric material.

- Appreciate the functional significance of the upper limb in clinical practice.

2. Thorax Anatomy

1. Knowledge

- Identify the organs and structures in the thorax, including the heart, lungs, trachea, esophagus, and diaphragm.
- Understand the functional anatomy of the respiratory and cardiovascular systems.
- Learn the relevant neurovascular structures in the thorax and their clinical significance.

2. Skills

- Demonstrate the identification of anatomical structures in the thoracic region using cadavers and imaging studies.
- Identify the location and function of important thoracic structures (e.g., mediastinum, pleura, ribs).
- Perform relevant clinical procedures (e.g., auscultation, percussion) based on thoracic anatomy.

3. Attitudes

- Show respect for the complexity and interdependence of thoracic structures in health and disease.
- Be mindful of the clinical relevance of thoracic anatomy in respiratory and cardiovascular care.

3. Head and Neck Anatomy

1. Knowledge

- Describe the anatomy of the head and neck, including bones, muscles, blood vessels, and nerves.
- Understand the structures of the face, oral cavity, pharynx, larynx, and cranial nerves.
- Learn the anatomy of the ear, eyes, and nasal structures, and their clinical relevance.

2. Skills

- Identify the major anatomical landmarks and structures of the head and neck (e.g., cranial nerves, muscles of facial expression).
- Correlate anatomical features with clinical applications such as neurological examination and facial nerve testing.

- Perform clinical procedures relevant to head and neck anatomy (e.g., checking cranial nerve function, palpating lymph nodes).

3. Attitudes

- Demonstrate sensitivity to patient privacy and comfort during head and neck examinations.
- Appreciate the clinical importance of accurate anatomical knowledge in diagnosing conditions like tumors, infections, and cranial nerve deficits.

4. Abdominal Anatomy

1. Knowledge

- Describe the anatomy of the abdominal cavity, including the major organs (liver, stomach, intestines, kidneys, spleen).
- Understand the anatomy of the peritoneal cavity, mesenteries, and retroperitoneal structures.
- Identify the vascular, nervous, and lymphatic structures in the abdomen.

2. Skills

- Demonstrate the ability to identify abdominal organs and structures using cadavers, imaging, and palpation.
- Perform relevant clinical procedures (e.g., abdominal palpation, auscultation, percussion) to evaluate abdominal health.
- Correlate abdominal anatomy with clinical conditions like hernias, gallstones, or appendicitis.

3. Attitudes

- Be respectful of patient dignity during abdominal examinations.
- Develop a keen awareness of the importance of abdominal anatomy in diagnosing gastrointestinal and genitourinary conditions.

5. Central Nervous System (CNS) Anatomy

1. Knowledge

- Understand the organization of the CNS, including the brain, spinal cord, and associated structures.
- Describe the major functional regions of the brain and their clinical implications.
- Learn the structure and function of the meninges, ventricles, and cerebrospinal fluid (CSF).

2. Skills

- Identify brain regions, spinal cord segments, and cranial nerves on anatomical models and imaging studies.
- Perform basic neurological examinations based on CNS anatomy (e.g., reflexes, sensory/motor testing).
- Apply neuroanatomical knowledge in the context of neurological disorders (e.g., strokes, spinal cord injuries).

3. Attitudes

- Develop a sense of responsibility and ethical consideration when studying and handling the human nervous system.
- Recognize the impact of CNS disorders on patient well-being and quality of life.

Competencies in Surgical and Clinical Procedures

1. Knowledge

- Understand the principles behind common surgical and clinical procedures (e.g., venipuncture, catheter insertion, muscle biopsy).
- Learn the anatomical landmarks involved in performing procedures on different body regions.

2. Skills

- Demonstrate proficiency in performing basic clinical and surgical procedures with correct anatomical technique.
- Identify anatomical landmarks and structures while performing procedures on cadavers or under supervision.
- Demonstrate competency in emergency procedures based on anatomical knowledge (e.g., intubation, chest tube insertion).

3. Attitudes

- Cultivate a patient-centered approach, ensuring safety and professionalism in procedural practice.
- Be conscious of the ethical considerations and potential risks involved in clinical interventions.

1st Year MBBS
1. Foundation Module

Sr. No.	Domain	Topic	Video Link	Level of Cognition	Learning Objectives At the end of this video students should be able to
1.	Gross Anatomy	Brachial plexus	Anatomy-Brachial Plexus Brachial Plexus Injuries Erb's and Klumpke's palsy	C3	<ul style="list-style-type: none"> Relate the neural deficit associated with injuries to different parts of brachial plexus.
		Clavicle Scapula	Clavicle & Scapula-Anatomy Rotator Cuff	C1 C2	<ul style="list-style-type: none"> Demonstrate anatomical position, general features, attachments, and articulation of clavicle and scapula. Relate the action of rotator cuff muscles with movements of shoulder joint.
		Breast	Breast-Anatomy	C1	<ul style="list-style-type: none"> Describe structure of gland. Discuss the blood supply, venous drainage and lymphatics. Correlate Clinical picture and lymphatic spread in breast carcinoma
2.	Embryology	Gametogenesis	Mitosis Meiosis Spermatogenesis Down Syndrome Turner Syndrome Angelman Syndrome	C1 C1 C1 C3 C3 C3	<ul style="list-style-type: none"> Discuss role of female hormones during oogenesis Describe different stages of oogenesis Correlate clinical conditions
		First Week of Development: Ovulation to Implantation	Fertilization Human development Days 1-4 Human Development Days 4-7 The Menstrual Cycle How IVF Works	C1 C1 C1 C1 C3	<ul style="list-style-type: none"> Describe follicular development, ovulation and subsequent events in ovary Describe different phases and results of fertilization
3.	Histology	Epithelium	Epithelial Tissue Glandular Epithelium Breast Histology	C1 C1 C1	<ul style="list-style-type: none"> Discuss general features of Epithelial cell Explain the histological structure of simple and stratified epithelium Discuss the ultra structure of mammary gland Discuss different stages of activity of mammary gland

2. Musculoskeletal Module-I (MSK-I)

Sr. No.	Domain	Topic	Video Link	Level of Cognition	Learning Objectives At the end of this video students should be able to
1.	General Anatomy	Types of Synovial Joints	https://youtu.be/dJZz7hBoALs	C2	<ul style="list-style-type: none"> Describe structure of synovial joint Classify synovial joints Explain movements around synovial joints
2.		Bone Healing after Fracture	https://youtu.be/X8pouA7I2jw	C3	<ul style="list-style-type: none"> Discuss bone growth, remodeling and repair
3.	Embryology	Implantation	https://youtu.be/E63KtO4h3MM	C2	<ul style="list-style-type: none"> Describe formation of Amniotic Cavity, embryonic disc and Umbilical vesicle Outline the process of implantation
4.		Ectopic pregnancy	https://youtu.be/EBuqZr4AfW4	C3	<ul style="list-style-type: none"> Discuss the common sites of ectopic pregnancy. Relate the risks and management of ectopic pregnancy with its site.
5.		Development of Placenta	https://youtu.be/bped-RVWsLk	C2	<ul style="list-style-type: none"> Discuss Implantation and establishment of the embryo within the uterus Describe the development of a placenta
6.		Folding of Embryo	https://youtu.be/qMnpxP6EeIY	C2	<ul style="list-style-type: none"> Describe folding of the embryo in median plane Describe folding of the embryo in horizontal plane Discuss results of folding
7.	Gross Anatomy	Shoulder Dislocation	https://youtu.be/8K131AehzZ4	C3	<ul style="list-style-type: none"> Discuss the attachments of capsule and ligament of shoulder joint Relate the dislocation of shoulder joint with the factors responsible for the stability of the joint.
8.		Anatomy of Axilla	https://youtu.be/NEJenI3zhi0	C2	<ul style="list-style-type: none"> Describe the boundaries of Axilla. Explain the contents of Axilla.
9.		Brachial plexus Injuries	https://youtu.be/VfbxxqzC590	C3	<ul style="list-style-type: none"> Relate the injuries to different parts of brachial plexus with the neural deficit.
10.		Carpal Tunnel Syndrome: Phalen & Tinnel sign	https://youtu.be/6bOYvEADHyU	C3	<ul style="list-style-type: none"> Relate the distribution of median nerve with its entrapment. Perform clinical tests to check the integrity of median nerve.

3. Musculoskeletal Module-II (MSK-II)

Sr. No	Domain	Topic	Video Link	Level of Cognition	Learning Objectives At the end of this video students should be able to
1.	Embryology	Limb Development	https://youtu.be/VpbdqGJ9LWk	C2	<ul style="list-style-type: none">• Describe different stages of limb development• Discuss rotation of limb• Understand the effect of rotation on dermatome pattern
2.	Histology	Histology of Skeletal Muscle	https://youtu.be/SCznFaTwTPE	C2	<ul style="list-style-type: none">• Describe histological structure of skeletal muscles• Understand the sliding filament Theory

4. Hematology and Immunology Module

Sr. No	Domain	Topic	Video Link	Level of Cognition	Learning Objectives At the end of this video students should be able to
1.	Gross Anatomy	Tibialis anterior strain	https://www.youtube.com/watch?v=55TGq-O8W_4	C3	<ul style="list-style-type: none"> • Describe the Anatomy and Function of the Tibialis Anterior Muscle • Explain the Causes, Symptoms, and Risk Factors of Tibialis Anterior Strain • Discuss the Diagnosis, Treatment, and Prevention Strategies
2.		Injury to Common Fibular Nerve and Foot drop	https://www.youtube.com/watch?v=J7-L9MFRXD8	C3	<ul style="list-style-type: none"> • Describe the Anatomy and Function of the Common Fibular Nerve • Explain the Causes, Clinical Features, and Pathophysiology of Foot Drop • Discuss the Diagnosis, Treatment, and Rehabilitation of Common Fibular Nerve Injury
3.		Calcaneal Tendinitis	https://www.youtube.com/watch?v=khqwC4l0Sql	C3	<ul style="list-style-type: none"> • Describe the Anatomy and Function of the Calcaneal Tendinitis • Explain the Causes, Clinical Features, and Pathophysiology of Calcaneal Tendinitis • Discuss the Diagnosis, Treatment, and Rehabilitation of Calcaneal Tendinitis
4.		Ruptured Calcaneal Tendon	https://www.youtube.com/watch?v=7blcH01kGik	C3	<ul style="list-style-type: none"> • Describe the Anatomy and Function of the Ruptured Calcaneal Tendon • Explain the Causes, Clinical Features, and Pathophysiology of Ruptured Calcaneal Tendon • Discuss the Diagnosis, Treatment, and Rehabilitation of Ruptured Calcaneal Tendon
5.		Calcaneal Tendon Reflex	https://www.youtube.com/shorts/6eqzFNb9Ci8		<ul style="list-style-type: none"> • Describe the Anatomy and Neural Pathway of the Calcaneal Tendon Reflex • Explain the Clinical Significance and Interpretation of the Reflex Response • Discuss the Assessment, Techniques, and Factors Affecting the Calcaneal Tendon Reflex

5. Cardiovascular System Module (CVS)

Sr. No.	Domain	Topic	Video Link	Cognition Level	Learning Objectives At the end of this video students should be able to
1.	Embryology	Development of the Heart (3D)	https://www.youtube.com/watch?v=a0qyaglgBPw&ab_channel=HyeonjooKim	C2	<ul style="list-style-type: none"> Describe the sequential steps in heart development. Explain the folding of the primitive heart tube. Identify key embryological structures forming the adult heart.
2.		Do you know how is the Heart Formation In Embryo?	https://www.youtube.com/watch?v=Ze7YQ28wwao&ab_channel=DandelionMedicalAnimation	C2	<ul style="list-style-type: none"> Explain the embryological origins of the heart. Describe the role of neural crest cells in heart formation. Discuss key molecular signals involved in heart development.
3.		Cardiac Development	https://www.youtube.com/watch?v=-d2UfOePgZw&ab_channel=OPENPediatrics	C2	<ul style="list-style-type: none"> Compare normal and abnormal heart development. Identify common congenital heart defects. Analyze the role of gene expression in heart morphogenesis.
4.		Atrial Septation of the Heart	https://www.youtube.com/watch?v=-Cch7KnqsU&ab_channel=EmbryonAnimation	C3	<ul style="list-style-type: none"> Explain the process of atrial septation. Differentiate between primary and secondary septum formation. Relate septation defects to congenital disorders.
5.		Ventral View of Ventricle and Heart Outflow Tract Septation	https://www.youtube.com/watch?v=HEW3BuGxdRY&ab_channel=EmbryonAnimation	C2	<ul style="list-style-type: none"> Describe the embryological process of outflow tract division.

					<ul style="list-style-type: none"> Identify the contribution of neural crest cells. Explain defects leading to persistent truncus arteriosus.
6.		Congenital Heart Malformations	https://www.youtube.com/watch?v=Zrxiy0fIjFw&ab_channel=RhesusMedicine	C3	<ul style="list-style-type: none"> Identify different congenital heart defects. Assess their impact on circulation. Propose surgical or medical management strategies.
7.		Tetralogy of Fallot	https://www.youtube.com/watch?v=sJPWRZ4qbI&ab_channel=AlilaMedicalMedia	C3	<ul style="list-style-type: none"> Describe the four components of Tetralogy of Fallot. Explain the physiological consequences. Discuss surgical correction approaches.
8.		Understanding Atrial Septal Defect	https://www.youtube.com/watch?v=jljD3MSVfRE&ab_channel=NationwideChildrens	C3	<ul style="list-style-type: none"> Explain the embryological basis of atrial septal defects. Identify clinical presentations. Compare different types of septal defects.
9.		Ventricular Septal Defect	https://www.youtube.com/watch?v=1rH-lcKukiM&ab_channel=AlilaMedicalMedia	C3	<ul style="list-style-type: none"> Describe the types of ventricular septal defects. Explain the hemodynamic effects. Discuss indications for surgical intervention.
10.	Histology	Structure of Blood Vessels	https://www.youtube.com/watch?v=BAo2UqqyL3g&ab_channel=ByteSizeMed	C2	<ul style="list-style-type: none"> Identify the three layers of blood vessels. Compare structural differences between arteries, veins, and capillaries. Describe the function of the endothelium.

11.		Blood Vessel Histology Explained	https://www.youtube.com/watch?v=HSXVZYVKjFE&ab_channel=Corporis	C2	<ul style="list-style-type: none"> Describe the histological organization of blood vessels. Identify different types of arteries. Explain the functional adaptations of veins.
12.		Histology of arteries, veins and capillaries	https://www.youtube.com/watch?v=lm3iN-XHG8&ab_channel=Kenhub-LearnHumanAnatomy	C2	<ul style="list-style-type: none"> Differentiate between histological features of vessels. Relate structure to function. Interpret histological slides.
13.		Histology of the Heart wall	https://www.youtube.com/watch?v=xrRIMH2YIjw&ab_channel=Dr.GBhanuPrakashAnimatedMedicalVideos	C2	<ul style="list-style-type: none"> Identify the layers of the heart wall. Describe the histological features of myocardium. Explain the role of Purkinje fibers.
14.	Gross Anatomy	Bones of the Thoracic Wall	https://www.youtube.com/watch?v=PoA-Uq9w-7s&ab_channel=AnatomyZone	C2	<ul style="list-style-type: none"> Identify key bones of the thoracic cage. Describe the articulations of ribs with the sternum. Explain the role of the rib cage in respiration.
15.		Muscles of the Thoracic Wall	https://www.youtube.com/watch?v=mVLXqICrsdo&ab_channel=AnatomyZone	C2	<ul style="list-style-type: none"> Identify muscles involved in respiration. Explain the function of the diaphragm. Relate muscle contraction to chest expansion.
16.		Internal thoracic Artery	https://www.youtube.com/watch?v=Wf5PBpk8sfo&t=14s&ab_channel=Dr.GBhanuPrakashAnimatedMedicalVideos	C3	<ul style="list-style-type: none"> Describe the course of the internal thoracic artery. Identify its branches. Explain its clinical significance.
17.		Thoracic Nerves	https://www.youtube.com/watch?v=bcndmAGBSqw&ab_channel=TaimTalksMed	C2	<ul style="list-style-type: none"> Identify the major thoracic nerves. Describe their anatomical course.

					<ul style="list-style-type: none"> • Explain their functional roles.
18.		Mediastinum	https://www.youtube.com/watch?v=lo4S7HmnNqE&ab_channel=AnatomyZone	C2	<ul style="list-style-type: none"> • Define the anatomical boundaries of the mediastinum. • Identify key structures in each mediastinal compartment. • Explain the clinical significance of mediastinal masses.
19.		Pericardium	https://www.youtube.com/watch?v=5RMeCgJn730&ab_channel=Kenhub-LearnHumanAnatomy	C3	<ul style="list-style-type: none"> • Identify the layers of the pericardium. • Explain the function of pericardial fluid. • Describe pericardial effusion.
20.		Overview of Heart Anatomy	https://www.youtube.com/watch?v=heSsAreO_y0&ab_channel=TheNotedAnatomist	C2	<ul style="list-style-type: none"> • Describe the chambers and valves of the heart. • Explain the flow of blood through the heart. • Identify the coronary circulation.
21.		What is Coronary Artery Disease	https://www.youtube.com/watch?v=flJsXOMhuK0&ab_channel=ThrombosisAdviser	C3	<ul style="list-style-type: none"> • Explain the pathophysiology of coronary artery disease. • Identify risk factors. • Discuss treatment options.
22.		Myocardial Infarction and Coronary Angioplasty	https://www.youtube.com/watch?v=mLmKq5bQOg0&ab_channel=AlilaMedicalMedia	C3	<ul style="list-style-type: none"> • Explain the pathophysiology of myocardial infarction. • Describe the role of coronary angioplasty. • Identify ECG changes in infarction.
23.		Angina pectoris	https://www.youtube.com/watch?v=zD9aXZY0pdY&ab_channel=OsmosisfromElsevier	C3	<ul style="list-style-type: none"> • Differentiate stable and unstable angina. • Explain the pathophysiology of angina. • Identify pharmacological treatments.

6. Respiratory Module

Sr. No.	Domain	Topic	Video Link	Cognitive level	Learning Objectives At the end of this video students should be able to
1.	Gross Anatomy	Cervical rib	https://www.youtube.com/shorts/5PrgRrL3xes	C3	<ul style="list-style-type: none"> • Describe and classify the atypical ribs (side determination, features, attachments, relations, types and ossification. • Differentiate between typical and atypical ribs. • Discuss costal cartilages and their attachments. • Identify cervical rib on Xray, discuss clinical syndrome associated with it. • Describe the thoracic inlet syndrome.
2.		Pleural Tap	https://www.youtube.com/watch?v=vwhJAllrK1E	C3	<ul style="list-style-type: none"> • Discuss visceral and parietal pleura. • Discuss the pleural recesses and pleural cavity. • Define pleural effusion, identify in on Xray. • Management of pleural effusion
3.		Bronchoscopy	https://www.youtube.com/watch?v=XTC3AKmtres	C3	<ul style="list-style-type: none"> • Describe the level of commencement of trachea, its termination and the tracheal cartilages. • State the level of division of trachea • Identify most common site for lodgment of inhaled foreign body. • Management of lodged foreign body.
4.		Percussion	https://www.youtube.com/watch?v=zdkYujPkeqo	C2	<ul style="list-style-type: none"> • Clinical examination of chest for respiration • Detail introduction and explanation about inspection Palpation • Percussion • Auscultation
5.		Respiratory movement	https://www.youtube.com/shorts/McR70PIXb1Q	C2	<ul style="list-style-type: none"> • Describe the intercostals muscles (origin, insertion, direction of fibers, nerve supply and actions. • Define the respiratory movements on the basis of principles, factors and the different types (pump handle, bucket handle and piston).
6.		Mediastinal surface of lung	https://www.youtube.com/watch?v=vYXk_sIlinY	C1	<ul style="list-style-type: none"> • Identify the features of right and left lung. • Discuss and differentiate between the root of lung and the hilum of lung.

7.		Bronchopulmonary segments	https://www.youtube.com/watch?v=xoTxlgg6FKg	C1	<ul style="list-style-type: none"> • Discuss the bronchopulmonary segments and their clinical significance. • Discuss and differentiate between the root of lung and the hilum of lung.
8.	Embryology	Tracheoesophageal fistulas (TEF)	https://www.youtube.com/results?search_query=tracheoesophageal+fistula	C3	<ul style="list-style-type: none"> • Discuss formation of laryngotracheal diverticulum • Describe formation of trachea esophageal septum and its importance • List different types of TEF, correlate their symptoms with the type.
9.		Infant respiratory distress syndrome	https://www.youtube.com/watch?v=j3ypUILMRLs	C3	<ul style="list-style-type: none"> • Enlist different stages of lung maturation • Discuss process of maturation of lungs • Explain the production and significance of Surfactant • Discuss the feature, causes and management of IRDS
10.	Histology	Olfactory epithelium	https://www.youtube.com/watch?v=358rIW4vBps	C1	<ul style="list-style-type: none"> • Describe details of respiratory epithelium • Describe the features of olfactory mucosa • Appreciate differences between respiratory mucosa and olfactory mucosa

2nd Year MBBS

1. Gastrointestinal Tract Module (GIT)

Sr. No.	Domain	Topic	Video Link	Cognition Level	Learning Objectives At the end of this video students should be able to
1.	Embryology	Foregut Development	https://www.youtube.com/watch?v=0MGBI0g5ZzQ&t=330s	C2	<ul style="list-style-type: none"> Explains the schematic view and processes of foregut development in relation to the peritoneum. Leiden MOOC: Embryonic Development of the Gut – Animation An animated explanation of the gut development, including the foregut, midgut, and hindgut.
2.		Foregut Development: Esophagus & Stomach – Embryology	https://www.youtube.com/watch?v=AXjYm_fhVR4	C2	<ul style="list-style-type: none"> Detailed lecture covering the embryological development of the esophagus and stomach Leiden MOOC: Embryonic Development of the Gut – Animation An animated explanation of the gut development, including the foregut, midgut, and hindgut.
3.		Development of GIT Animation Video Embryology	https://www.youtube.com/watch?v=C8z10UanCKg	C2	<ul style="list-style-type: none"> Quick revision animation covering the development of the gastrointestinal tract
4.	Histology	Mucosa Gastrointestinal Tract Histology	https://www.youtube.com/watch?v=WYPzzUEcJ4s	C1	<ul style="list-style-type: none"> This video explores the mucosal layer of the GIT, detailing its components, including epithelia, lamina propria, and muscularis mucosae.
5.		Histology of the Digestive System	https://www.youtube.com/watch?v=uQeBiHLovTI	C1	<ul style="list-style-type: none"> Covers the general histological pattern of the digestive canal, including the esophagus, stomach, small intestine, and large intestine

6.		Digestive System Histology Review and Practice	https://www.youtube.com/watch?v=uQeBiHLovTI	C1	<ul style="list-style-type: none"> • Compares and contrasts the histology of the alimentary canal and concludes with practice questions. •
7.		Digestive System Histology Explained for Beginners Corporis	https://www.youtube.com/watch?v=st1LmpySWu8&t=48s	C1	<ul style="list-style-type: none"> • A beginner-friendly video explaining the histology of the digestive system, providing a comprehensive overview.
8.	Gross Anatomy	Gross anatomy of abdomen pelvis	https://www.youtube.com/watch?v=2VPaJZqWEfk	C1	<ul style="list-style-type: none"> • Enlist components of gastrointestinal tract • Enumerate the parts of GIT lying in the various quadrants. • Describe the position of organs of abdomen • Mark the planes dividing the abdomen into nine quadrants
9.		Arterial Supply of Stomach - Gross Anatomy of Abdomen	https://www.youtube.com/watch?v=hVpFJhMI004&list=PL0o42GecDaMf161ma947eMG8T5DLzUhH-&index=7	C1	<ul style="list-style-type: none"> • Describe the position and vertebral levels of aorta in abdomen • Enlist the main branches of aorta with area of supply • Explain the applied anatomy of aorta
10.		Gross anatomy of duodenum	https://www.youtube.com/watch?v=JUe_COKEmZE&t=323s	C1	<ul style="list-style-type: none"> • Describe the different parts of duodenum with their anatomical differences • Enumerate the relations of different parts of duodenum • Blood supply of duodenum
11.		Cross Sections of the Abdomen and Pelvis	https://www.youtube.com/watch?v=zWygriSxAg4	C2	<ul style="list-style-type: none"> • Define cross-sectional anatomy • How cross section are obtained (by taking imaginary slices perpendicular to the main axis of the organ, vessels, bones, soft tissues or even the entire human body).

2. Renal Module

Sr. No.	Domain	Topic	Video Link	Cognitive Domain	Learning Objectives At the end of this video students should be able to
1.	Embryology	Development of kidney (Embryology)	https://youtu.be/XQTzvTR1AIY	C2	<ul style="list-style-type: none"> Enlist the embryological sources for development of kidney Discuss the development of kidney
2.		3D Kidney (Embryology Part 1) 3D Kidney (Embryology Part 2)	https://youtu.be/-qLogtbMIU https://youtu.be/YELu uFhVF9U?si=CAyYznLD7v3sVDh5	C2 C2	<ul style="list-style-type: none"> Enlist the embryological sources for development of kidney Discuss the development of kidney
3.	Histology	Kidney (Histology)	https://youtu.be/rfmFXTpRGfU?si=Jf0kT0yA-TSahQrp	C1	<ul style="list-style-type: none"> Discuss the histological features of kidney
4.		Ureter (Histology)	https://youtu.be/wZ121w6Je-w?si=NgD-Dfzv0rUtMww0	C1	<ul style="list-style-type: none"> Discuss the histological features of ureter
5.		Urinary System (Histology)	https://youtu.be/ivBCcR4jAKA?si=FJ8Y_eFKAlnt7nlt	C1	<ul style="list-style-type: none"> Discuss the histological features of urinary system
6.	Gross Anatomy	Kidney Anatomy Model (Gross Anatomy)	https://youtu.be/7Z7aeBCQwTQ?si=qQ_KVC70lkzeiTNO	C1	<ul style="list-style-type: none"> Discuss the gross features of kidney
7.		Ureter, bladder & urethra (Gross Anatomy)	https://youtu.be/xnUviO0B6dU?si=P2g-8pZ23RI_odjI	C1	<ul style="list-style-type: none"> Discuss the gross features of ureter, bladder & urethra
8.		Clinical video of IVP	https://youtu.be/yfMUddrdKGM	C3	<ul style="list-style-type: none"> Discuss the indications for IVP Describe the steps for this procedure Enlist the parts which are assessed by this procedure
9.		Lithotripsy procedure	https://youtu.be/_Lt-Mub2xWM	C3	<ul style="list-style-type: none"> Discuss the indications for Lithotripsy Describe the steps for this procedure
10.		Removal of kidney stone	https://youtu.be/N9fc96ohTpk	C3	<ul style="list-style-type: none"> Describe the steps for removal of kidney stone Discuss the indications for renal transplant Describe the steps for this procedure
		Kidney transplant surgery	https://youtu.be/fELn4Fe9Ccc	C3	

3.

3. Reproduction Module

Sr. No.	Domain	Topic	Video Link	Level of Cognition	Learning Objectives At the end of this video students should be able to
1.	Gross Anatomy	Male external genitalia Testis & Male genital ducts	https://www.youtube.com/watch?v=ai7MjQvenKs	C2 C3	<ul style="list-style-type: none"> Describe the anatomy of external and internal structures of male reproductive organs Correlate clinical scenarios and pathologies related with these structures.
2.		Prostate	https://www.youtube.com/watch?v=93Ayq248u_8	C3	<ul style="list-style-type: none"> Demonstrate the anatomical features and relations of prostate Discuss its clinical anatomy
3.		Ovaries	https://www.youtube.com/watch?v=AREHaMIs9Y4	C3	<ul style="list-style-type: none"> Discuss anatomical relations of ovary Discuss neurovasculature and hormonal effects of ovaries Discuss important clinical anatomy of ovary
4.		Fallopian tubes, Uterus Cervix	https://www.youtube.com/watch?v=AREHaMIs9Y4 https://www.youtube.com/watch?v=PMI-iJwNt3Y https://www.youtube.com/watch?v=AREHaMIs9Y4	C3	<ul style="list-style-type: none"> Discuss normal positions of uterus with its ligaments Discuss its neurovasculature Discuss important clinical anatomy of fallopian tubes, uterus and uterine tube
5.		Ischio-anal fossa	https://www.youtube.com/watch?v=K4K3a8UnS5M	C2	<ul style="list-style-type: none"> Describe the contents of Ischio anal fossa Describe pudendal canal and its contents • Discuss important clinical anatomy of structures
6.		Urogenital diaphragm	https://www.youtube.com/watch?v=ZaIRPhXavVg	C2	<ul style="list-style-type: none"> Identify the relations and contents of diaphragm Discuss organs piercing urogenital diaphragm Discuss important clinical anatomy related to diaphragm
7.		Perineum & Superficial perineal pouches	https://www.youtube.com/watch?v=OwWk6tqsW8o	C2	<ul style="list-style-type: none"> Discuss formation of perineal pouches Discuss in detail the contents of 1 perineal pouches in male and female Discuss important clinical
8.		Deep perineal pouches	https://www.youtube.com/watch?v=q0Ax3rLfc6M	C2	<ul style="list-style-type: none"> Discuss in detail the contents of deep perineal pouches in male and female

					<ul style="list-style-type: none"> • Discuss important clinical anatomy related to deep perineal pouches.
9.		<p>Blood supply of pelvis and perineum</p> <p>Lymphatic drainage of pelvis and perineum</p>	<p>https://www.youtube.com/watch?v=xYu56Luwdl8</p> <p>https://www.youtube.com/watch?v=o4TplbDDej8</p>	C3	<ul style="list-style-type: none"> • Identify major blood vessels & nerves of pelvis and perineum • Demonstrate anatomical relationships • Describe important clinical anatomy related to blood vessels of pelvis and perineum
10.		Pelvic Peritoneum and its contents	<p>https://www.youtube.com/watch?v=F2-5tX_CMIQ</p> <p>https://www.youtube.com/watch?v=3Z0XBCyXb3Y</p>	C2	<ul style="list-style-type: none"> • Demonstrate peritoneal reflections on pelvic viscera • Discuss pouches formed by peritoneum • Discuss clinical anatomy of pelvic peritoneum and pelvic viscera

4. Central Nervous System Module (CNS)

Sr. No.	Domain	Topic	Video Link	Level of Cognition	Learning Objectives At the end of this video students should be able to
1.	Gross Anatomy	Cells of the nervous system	https://www.youtube.com/watch?v=AwES6R1_9PM	C2	<ul style="list-style-type: none"> Differentiate between neurons and neuroglia List the neuroglia and their functions Describe myelination of nerve fibers
2.		Cerebral Aqueduct & its Stenosis	https://www.youtube.com/watch?v=gATfwP2fRN8	C3	<ul style="list-style-type: none"> Describe the anatomical basis of cerebral aqueduct stenosis Describe the causes of cerebral aqueduct stenosis, including congenital, acquired, and idiopathic factors.
3.		Nerve Block	https://www.youtube.com/watch?v=uVSiFJ85EtM	C3	<ul style="list-style-type: none"> Define nerve block and describe its role in regional anaesthesia and pain management. Classify the different types of nerve blocks (e.g., peripheral nerve block, central nerve block). Describe the mechanism of action of local anesthetics in nerve blockade.
4.		Spinal tap Anesthesia	https://www.youtube.com/watch?v=D9AOLTQF-co	C3	<ul style="list-style-type: none"> Define spinal anaesthesia and describe its indications in clinical practice. Explain the paramedian approach to spinal anaesthesia and how it differs from the midline approach. Describe the anatomical landmarks and structures encountered in the paramedian technique.
5.		Parts of Brain on imaging	https://www.youtube.com/watch?v=Co7Qyu21QKU	C3	<ul style="list-style-type: none"> Identify the major anatomical divisions of the brain on MRI, including the cerebrum, cerebellum, and brainstem. Describe the deep brain structures, including the basal ganglia, thalamus, hypothalamus, and limbic system on MRI Recognize the gray matter and white matter differentiation on T1- and T2-weighted MRI images.
6.		Anatomical basis of signs and symptoms of cerebellar diseases	https://www.youtube.com/watch?v=IdDKz1opCD8	C2	<ul style="list-style-type: none"> Identify and describe the gross features of cerebellum Describe internal structure of gray and white matter of cerebellar cortex Describe the anatomical basis of signs and symptoms of cerebellar diseases such as hypotonia, gait alteration, ataxia, dysdiadochokinesia, disturbances in

					reflexes, disturbances in ocular movement, disorders of speech
7.	Embryology	Development of CNS	https://www.youtube.com/watch?v=lhapeOo6laA	C2	<ul style="list-style-type: none"> Describe the formation of the neural tube and its differentiation into the brain and spinal cord. Identify common congenital malformations of the nervous system, including neural tube defects (e.g., spina bifida, anencephaly), holoprosencephaly, and hydrocephalus.
8.		Development of Pituitary Gland	https://www.youtube.com/watch?v=seOqXoyKiGI	C2	<ul style="list-style-type: none"> Describe the development of pituitary gland Discuss the anatomical basis of Pharyngeal Hypophysis and craniopharyngioma
9.		Anencephaly	https://www.youtube.com/watch?v=iAfjHmq_b8	C3	<ul style="list-style-type: none"> Define anencephaly and describe its classification as a neural tube defect (NTD). Recognize the prenatal diagnostic methods for anencephaly and role of elevated maternal serum alpha-fetoprotein (AFP).
10.	Histology	Histology: Layers of Cerebrum	https://www.youtube.com/watch?v=nm3jPxNYajI	C2	<ul style="list-style-type: none"> Describe the histological structure of cerebrum Correlate the clinical conditions associated with it

5. Special Senses Module

Sr. No.	Domain	Topic	Video Link	Level of Cognition	Learning Objectives At the end of this video students should be able to
1.	Gross Anatomy	Rhinoplasty	https://www.guncelozturk.com/en/	C3	<ul style="list-style-type: none"> Describe nasal bones and cartilage of lateral wall of nose Describe bones of nasal septum
2.		Epistaxis	http://bit.ly/1wg2qqM	C3	<ul style="list-style-type: none"> Describe blood supply of nasal septum Describe Keisselbach's plexus
3.		Myopia	https://www.aaopt.org/eye-health/diseases...	C3	<ul style="list-style-type: none"> Describe shape and coats of eyeball Describe errors of refraction in association of eye anatomy
4.		Glaucoma	https://www.aaopt.org/eye-health/diseases...	C3	<ul style="list-style-type: none"> Describe chambers of eyeball Describe production, circulation and drainage of aqueous humour Describe intraocular pressure and associated anomalies.
5.		Blocked nasolacrimal duct	https://www.aaopt.org/eye-health/diseases...	C3	<ul style="list-style-type: none"> Describe anatomy of nasolacrimal system Discuss pterygopalatine ganglion and its connections Discuss anomalies associated with nasolacrimal system
6.	Histology	Pterygium	https://youtu.be/mm_fGVWMS94?t=74	C3	<ul style="list-style-type: none"> Describe histology of cornea and conjunctiva Discuss microscopic anatomy of eyelid Discuss anomalies associated with UV rays exposure to cornea
7.		Rinne vs Weber test	https://www.youtube.com/shorts/PV7EY-55H-c?feature=share	C2	<ul style="list-style-type: none"> Describe organ of Corti Discuss role of organ of Corti in hearing pathway. Discuss investigation to recognize type of deafness.
8.		Meniere's Disease	https://youtu.be/xrInOxlgokg	C3	<ul style="list-style-type: none"> Describe microscopic anatomy of semicircular canals, Discuss Vestibulochochlear nerve Discuss role of semicircular canals in maintaining balance Discuss anomalies associated with semicircular canals
9.	Embryology	Hypoglossal nerve damage	http://www.nejm.org/doi/full/10.1056/...	C3	<ul style="list-style-type: none"> Describe development of tongue Discuss tongue development in relation to hypoglossal nerve Discuss clinical presentation of hypoglossal nerve damage
10.		Sixth nerve palsy	https://youtu.be/CSpj6CISdn8	C3	<ul style="list-style-type: none"> Describe development of eyeball in relation with sixth cranial nerve. Discuss clinical presentation of sixth cranial nerve palsy.

6. Endocrinology Module

Sr. No.	Domain	Topic	Video Link	Level of Cognition	Learning Objectives At the end of this video students should be able to
1.	Gross Anatomy	Tracheostomy Procedure	https://youtu.be/d_5eKkwnIRs	C3	<ul style="list-style-type: none"> Discuss the Anatomical layers encountered during Tracheostomy Describe the site of incision Explain the procedure step by step.
2.		Scar less Thyroidectomy	https://youtu.be/iT5jSgixOWY	C3	<ul style="list-style-type: none"> Discuss the site of incision Describe the scar less access to Thyroid gland Explain the procedure step by step.
3.		Tracheal Intubation (Indirect Laryngoscopy)	https://youtu.be/8CwLSenUWnw	C3	<ul style="list-style-type: none"> Discuss the indications for this procedure. Describe the step wise details for the procedure Enlist the structures seen during the procedure.
4.		Carotid Angioplasty & Stenting	https://youtu.be/16mgmXGrn2U	C3	<ul style="list-style-type: none"> Discuss the indications for this procedure. Describe the step wise details for the procedure Explain the precautions needed in this procedure.
5.		Sialolith removal from submandibular duct	https://youtu.be/T-GG5MAj3Kw	C3	<ul style="list-style-type: none"> Discuss the indications for this procedure. Describe the step wise details for the procedure Explain the precautions needed in this procedure.
6.		Hangman's fracture, 2 nd Cervical vertebra fractures	https://youtu.be/BnUBXiWsCoE	C2	<ul style="list-style-type: none"> Discuss the Hangman's fracture. Describe the clinical manifestations for this fracture. Explain the anatomical reasons for these manifestations
7.	Embryology	Development of Pituitary gland	https://youtu.be/seOqXoyKiGI	C2	<ul style="list-style-type: none"> Enlist the embryological sources of pituitary gland Discuss the step wise development of pituitary gland. Describe the congenital anomalies related to its abnormal development.
8.		Thyroglossal duct cyst	https://youtu.be/XBIxMGgNOQw	C2	<ul style="list-style-type: none"> Enlist the embryological sources of Thyroid gland

		(Embryological basis)			<ul style="list-style-type: none"> • Discuss the step wise development of this gland • Describe the embryological basis of Thyroglossal duct cyst.
9.	Histology	Thyroid Gland	https://youtu.be/O_tFYKu4EpE	C1	<ul style="list-style-type: none"> • Discuss the histological features of Thyroid gland. • Describe the cells of the gland. • Explain the process involved in colloid formation
10.		Adrenal Gland	https://youtu.be/hAA3L8_FF04	C1	<ul style="list-style-type: none"> • Discuss the histological features of Thyroid gland. • Describe the cells of the gland. • Explain the different zones of the gland.