Structure of Thorax and abdomen -MED1206

Year 1 Semester 2

Credits: 4 **Module Coordinator: Dr. SMK Gamage**

TOPICS / CONCEPT	OBJECTIVES	Duration	T/L activity	Comments
Osteology and surface marking of thorax and abdomen	Student should be able to: • Identify and orientate the bones that form the thoracic cage • State the boundaries of the thoracic inlet outlet • State and demonstrate the bony landmarks of the thorax • Count the ribs and intercostal spaces. • Demonstrate the surface markings of the heart, pericardium, lungs and the pleura. • Identify and orientate the lumbar vertebrae and bones forming the pelvis. • State the boundaries of the pelvic inlet and outlet. • Define the greater and lesser pelvic cavities • Identify important muscle attachments on the bones studied	1hr 4hrs	Lecture PD	Practical using bones, skeleton and volunteers
Anterior thoracic and abdominal walls and Inguinal canal	• Describe the arrangement of the muscles of the chest wall • Describe the arrangement of structures in the intercostal space • Describe the movement of the chest wall during respiration and state its mechanism • Describe the blood supply, nerve supply and lymphatic drainage of the chest wall and intercostals spaces	12hrs	Dissection	

	• Draw and label the dermatomes of the chest wall • Describe the arrangement of muscles of the anterior abdominal wall • Describe the formation of the rectus sheath • describe the formation of the inguinal canal and its boundaries • state the contents of the inguinal canal • describe the coverings of the spermatic cord • describe the formation of hernia • explain the embryological descent of testes in relation to adult anatomy	2 hrs 1 hr	Lectures Body side SGD	
Thoracic cavity, mediastinum, heart and vascular tree	• Describe the boundaries of the mediastinum and its divisions • Describe the structures in the different divisions of the mediastinum and state their relations • Describe the arrangement of the pericardium • State the nerve supply of the pericardium • State the functions of the pericardium • State the clinical correlations of the pericardium • Describe the position of the heart and the great vessels in the mediastinum • Describe the internal and external appearance and structure of the heart(chambers, valves, ect) • Identify the cardiac silhouette and the parts of the heart and great vessels that contribute to the outline of it • Describe the conducting system of the heart • Describe the arrangement of the great vessels • Describe the relations of the heart and the great vessels • Describe the blood supply of the heart.	1hr 15hrs 1 hr 2hrs	Lecturer Dissections Body side SGD Tutorial	
	• Describe the microscopic structure of the cardiac muscle and blood vessels and lymphatics • Describe the arrangement of the vascular tree.	1 hr	Lecture (Histology& Clinical)	

	• Describe the arrangement of the lymphatic system • Correlate how the structural features of the vascular tree is adapted to perform its functions • Describe the clinical correlations of the heart and great vessels	2hrs	PD	
Development of the heart and blood vessels	• Describe the development of the heart and blood vessels • Describe the foetal circulation • Describe the circulatory changes that occur at birth • Describe the congenital anomalies of the heart and blood vessels	1 hr	Lecture	
Pleura, lungs and airways	• Describe the anatomy of the pleura and pleural cavities • Surface mark the pleura and lungs • State and describe the common clinical problems of the thoracic cavity (pleural effusion, pneumothorax, haemothorax) • Describe the anatomical basis of the pleural tap and surgical approaches to the thorax • Identify the lungs and parts of the airways • Describe the bronchial tree and bronchopulmonary segments • Describe and identify the microscopic structures of the lungs and bronchial tree • Correlate the structure of lungs and airways with its function • Describe the blood supply, nerve supply and lymphatic drainage of lungs and airways • Identify lungs and airways in relation to other structures in the thoracic cavity • Describe the surface projections of the apex of the lungs and the fissures of the lungs	3hrs 2 hrs 2 hrs 2 hrs	Dissection PD (Histology) Lecture (Histology) Tutorial	
Development of the respiratory tract	• Development of the respiratory system and associated developmental abnormalities	1 hr	Lecture	

Cross Sectional anatomy of thorax	• Understand the importance of cross sectional anatomy • Identify structures in cross sections of the thorax • Identify the above structures in a cross sectional radiographs	1 hr 3 hrs	Lecture PD	
Diaphragm	• Describe the component parts of the diaphragm and state its functions • Describe the nerve supply and blood supply of the diaphragm • State and identify structures passing through the diaphragm including the vertebral levels • Use the knowledge of anatomy in examining the respiratory system • State and describe the common clinical problems of the thoracic cavity • Clinical correlations of diaphragm related to respiration • Describe the development of the diaphragm including its congenital abnormalities	1hr 3 hrs 1 hr 1 hr	Lecture Dissections Body side SGD Lecture	
General arrangement of gastrointestinal system	Student should be able to: • State the main functions of the gastrointestinal system. • outline the general structure of gastrointestinal system to perform the functions • describe the general pattern and microscopic Anatomy of the alimentary canal	1 hr	Lecture	
Oral cavity	• describe the boundaries of the oral cavity. • state how the structures in the oral cavity are adapted to perform the functions (teeth, tongue, salivary glands etc) • outline the macroscopic and microscopic features of the structures in the oral cavity including the	2 hrs 3 hrs	Lectures PD	1hr lecture for structure and function of oral cavity 1 hr lecture for dentition

	salivary glands • state and identify the muscles forming the floor of the mouth • name and identify the types of teeth in the deciduous and permanent dentition • state the development and eruption times of teeth and its relevance in aging			Practical using prosected specimens.
Surface projections of abdominal organs	Student should be able to: • State how the abdomen is divided into nine regions • State the surface projections of abdominal structures. • Outline the procedure of clinical examination of the abdomen.	1 hr 3 hrs	Video demonstration PD in skills lab	Surface projections of the abdominal organs and anatomical basis of clinical examination of the abdomen will be done. Surface projection practical to be done in the skills laboratory 1/3 of the batch at a time timetabled in parallel with 2/3 of the batch doing dissections. Reserve skills lab
Abdominal cavity and its compartmentalization	• Describe the peritoneal reflexions • Describe the general arrangements of viscera in the abdominal cavity • Understand the arrangement of the peritoneum and its relationship with the abdominal organs • Localise the viscera within the abdominal cavity and learn their gross landmarks and features	1 hr 6 hrs	lecture Dissections	
Oesophagus and stomach	• Describe the macroscopic and microscopic structure of the oesophagus • List the functions of the stomach. • Explain how structure is organized to perform the functions (macroscopy, microscopy, innervation and blood supply).	2 hrs 6 hrs	Lecture Dissections	Histology lectures – oesophagus, stomach, small intestine, large intestine, Liver & Pancreas. Histology practical to be done after completing the macroscopic

				structures of small and large intestine
Small intestine, large intestine and liver	• List the functions of the small intestine. • Describe the anatomy of the duodenum, jejunum and ileum. • Describe the gross morphology, relationships, • And blood supply of the liver, gall bladder, biliary tree, pancreas and spleen	6 hrs 6 hrs 1 hr 3 hrs	Lectures Dissections Body side SGD Histology PD	Histology lecture has scheduled with stomach lecture Histology practical will be done here (esophagus, stomach, small intestine, large intestine, liver and pancreas)
Development of the alimentary tract	Describe the development of the alimentary tract and its anomalies	4 hrs	Lectures	Lectures to be scheduled along with the dissections of the relevant structures
Posterior abdominal wall	Describe the anatomy of the posterior abdominal wall	1 hr 2 hrs	Lecture Dissection	

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