

LECTURES 11, 12, 13: DIGESTIVE SYSTEM: GASTROINTESTINAL TRACT, PANCREAS, AND LIVER (3 lectures)

STRUCTURE: MACROSCOPIC ANATOMY:

- 1) Define *alimentary canal* (also called *gastrointestinal tract*); name its organs and distinguish them from the accessory digestive organs
- 2) Distinguish between the visceral peritoneum and parietal peritoneum
- 3) Describe the function and location of the nerve plexuses of the enteric nervous system
- 4) Describe the location and gross anatomy of the pharynx, esophagus, stomach, small intestine, and large intestine
- 5) Describe the location, gross anatomy, microscopic anatomy, and digestive functions of the liver and pancreas
- 6) Describe the location, gross anatomy, and digestive functions of the gallbladder

STRUCTURE: MICROSCOPIC ANATOMY

- 7) Define and describe *mesentery*, including its functions
- 8) Describe the four major layers and their sublayers of the alimentary canal wall
- 9) Describe the microscopic anatomy and functions of the pharynx, esophagus, stomach, small intestine, and large intestine
- 10) Differentiate the epithelial lining of the digestive tract from the oral cavity through the large intestine

FUNCTION

- 11) Define the six essential food-processing activities that occur during digestion: ingestion, propulsion, mechanical digestion, chemical digestion, absorption, and defecation
- 12) Describe how the process of digestion is an extracellular process that occurs outside the body
- 13) Define and distinguish between *peristalsis* and *segmentation*

FLOW PATHWAYS

- 14) Trace the flow of bile from hepatocytes through the system of ducts ultimately into the duodenum, explaining the role bile plays in the digestive process
- 15) Trace the flow of blood through the vascular system from the small intestine, through the liver, and to the heart
- 16) Describe disorders of the digestive system: intestinal obstruction, inflammatory bowel disease, viral hepatitis, cirrhosis, and the effects of cystic fibrosis on the pancreas.

Optional:

- 17) Classify the teeth of adult dentition and describe the anatomical layers of teeth
- 18) Describe the location and gross anatomy of the oral cavity and salivary glands.
- 19) Describe the microscopic anatomy and functions of the oral cavity and salivary glands.