**OCEAN COUNTY COLLEGE BIOL 131 Human Anatomy**

**Department of Science and Physiology II**

**Instructor: Dr. Angel Camilo**

**Laboratory Practical II**

A. **Respiratory System:**

1. Histology: Trachea

Lung

2. Models:

a) Half-head Model (also for digestive system)

-naris (external) -hard palate

-nasal conchae -pharynx (nasopharynx, oropharynx, laryngopharynx)

-tongue -uvula

b) Bronchial Tree (C-rings of trachea, Tracheal muscle, Larynx, primary, secondary and tertiary bronchi)

c) Larynx Model

-hyoid bone -glottis -vocal cords -epiglottis

-thyroid cartilage -cricoid cartilage -arytenoid cartilage

-tracheal cartilage -corniculate cartilage -trachea (C-ring cartilage,

Trachialis muscle)

3. Acid-Base Balance (Handout) – Know the reaction and enzyme

a) CO2 + H2O carbonic anhydrase H2CO3 HCO3 +H+

**B. Urinary System:**

1. Histology: Bladder (Mucosa: transitional epithelium, Muscular layer, Fibrous adventitia)

Kidney (cortical and medullary areas, glomerulus)

2. Models:

a) Nephron, Kidney

-cortex -medulla -renal pelvis -renal papilla -renal columns

-renal pyramids -renal artery -renal vein -ureter

-interlobar artery/vein -interlobular artery/vein -arcuate artery/vein

-glomerulus -bowmans capsule -proximal convoluted tubule

-nephron loop (loop of Henle) -distal convoluted tubule -collecting duct

-major and minor calyx -efferent/afferent arterioles

**C. Digestive System:**

1. Histology: Stomach Salivary Gland (Serous, Mucous cells)

Liver (hepatocyte, Kupffer cells) Small intestine

Large intestine(gobletcells) Pancreas (acinar exocrine cells)

2. Digestive System Models:

a. Intestinal Villi model

b. Half-head model

c. Mandible

- teeth (incisors, canines and molars)

d. Torso model

-esophagus

-stomach (greater and lesser curvature, cardiac, fundus and pyloric regions)

-small intestine (duodenum, jejunum, ileum)

-large intestine (cecum, ascending colon, right colic, transverse colon, left colic, descending colon, sigmoid colon, rectum)

-liver

-gall bladder

-pancreas

e. Duodenum, Pancreas (Pancreatic Duct), Gallbladder, Spleen model

3. Chemical and Physical Processes of Digestion

\*amylase and trypsin

**D. Reproduction System:**

1. Histology: Penis cross-section Uterus

Testis/Epididymis (semineferious tubles) (Endometrium with functional & basal layer)

Seminal Vesicle Myometrium

Ovary (graffian follicle)

(germ cells)

(oocyte)

2. Models:

a. Female Reproduction model

-greater pudendal lip (major labia) -smaller pudendal lip (minor labia), mons pubis

-clitoris -urinary bladder -ureter -vagina -uterus

-cervix -uterine tube (fimbriae, infundibulum)

b. Male Reproductive model

-urinary bladder -prostate -seminal vesicles -penis

-glans penis -external urethral orifice -testicle -epididymis -rectum

-spermatic cord -bulb urethral gland -ejaculatory duct -pampinform plexis