

Exercise 16/Blood

Dr. Marvin E. Holtz
Human Anatomy and Physiology Lab II

All Terms/Definitions/Descriptions

Prefixes/Suffixes

All Structures and Associated Functions

Microscope Slides

View each slide and identify multiple examples of RBCs, WBCs (all types) and/or Platelets.

1. Human Blood Smear
2. Eosinophilia (Eosinophils)
3. Sickle Cell Anemia

Hematocrit (page 387)

Each student will fill capillary tubes and place them in the centrifuge.

Blood Typing (Lab Manual: page 397; Textbook: page 61 and pages 680 to 685)

Hemoglobin Check

Use color coded test kit.

Miscellaneous

Study/know the names of each test, the reason for performing the test and the general procedures for all tests described in Exercise 16.

Supplemental Materials

Textbook (Chapter 19)
Google/Yahoo text and images

Exercise 17/Heart

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All Terms/Definitions/Descriptions

Prefixes/Suffixes

All Structures, Regions, Vessels and Associated Functions

Dissection of Sheep Heart (page 415)

Follow directions given by the instructor and described in the laboratory manual.

1. Identify/learn all external features/structures, including the anatomical orientation...left/right sides; anterior/posterior sides; apex/base; all margins; and the greater vessels.
2. Dissect/separate the anterior from the posterior sides and identify all internal structures, regions, vessels, layers, etc.

Microscope Slide

View slide and identify all of the primary structures associated with cardiac muscle.

4. Mammal Cardiac Muscle

Supplemental Materials

Plastic heart models
Preserved dissected human heart
Chart
Textbook (Chapter 20)
Google/Yahoo text and images

Exercise 18/Blood Vessels

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All Terms/Definitions/Descriptions

Prefixes/Suffixes

All Structures and Associated Functions

Dissection of Cat (page 472)

Follow directions given by the instructor and described in the laboratory manual.

Identify all major blood vessels by name and anatomical location.

Microscope Slide

View slide and identify veins and arteries according to anatomical features/structures.

5. Human Artery and Vein c. s. (Textbook: pages 730 to 732)

Circulatory Routes/Pathways

1. Pulmonary circuit
2. Systemic circuit
3. Hepatic portal circulation
4. Fetal circulation
5. Cerebral arterial circulation (Circle of Willis)

Supplemental Materials

Chart

Textbook (Chapter 21)

Google/Yahoo text and images

Exercise 19/Cardiovascular Physiology

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All Terms/Definitions/Descriptions

Prefixes/Suffixes

All Structures and Associated Functions

EKG Recordings/Tracing (page 488)

Follow directions given by the instructor and described in the laboratory manual.

Each student should use his or her own EKG tracing to identify the RR interval, P wave, PQ interval, QRS complex, ST segment and T wave; to determine the specific amount of time for each; and what each represents.

Cardiac Cycle (Lab Manual: page 493; Textbook: page 710 to 712)

No specific lab exercise, know the information.

Heart Sounds (page 499)

Follow directions given by the instructor and described in the laboratory manual.

Pulse Rate (page 499)

Follow directions given by the instructor and in the laboratory manual.

Blood Pressure/Auscultation Method (page 501)

Follow directions given by the instructor and in the laboratory manual.

Supplemental Materials

Plastic models

Chart

Textbook (Chapters 20 and 21)

Google/Yahoo text and images

Exercise 21/Respiratory System

Dr. Marvin E. Holtz
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All Terms/Definitions/Descriptions

Prefixes/Suffixes

All Structures and Associated Functions

Dissection of Cat (page 531)

Follow directions given by the instructor and described in the laboratory manual.
Locate, identify, observe, touch and feel all related anatomical structures.

Laboratory Tests on Respiration

1. Mechanics of Pulmonary Ventilation /Breathing (page 535)
2. Measurement of Chest and Abdomen Respiration (page 537)
3. Respiratory Sounds (page 538)
4. Measurement of Respiratory Volumes (page 538)
Use procedure using handheld respirometer (page 540)

Microscope Slides

View each slide and identify all structures according to anatomical features/characteristics.

6. Mammal Trachea c. s.
7. Lung Normal and Coal Dust human sec.

Supplemental Materials

Plastic models

Inflatable swine lung...inflate, observe, touch and feel

Chart

Textbook (Chapter 23)

Google/Yahoo text and images

Exercise 22/Digestive System

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All Terms/Definitions/Descriptions

Prefixes/Suffixes

All Structures and Associated Functions

Dissection of Cat (page 568)

Follow directions given by the instructor and described in the laboratory manual.
Locate, identify, observe, touch and feel all related anatomical structures.

Deglutition (page 575)

Know anatomical structures and sequence of events.
Follow procedure on pages 575 – 576.

Pages 576 -585

Sections to be omitted/no specific laboratory exercises

Microscope Slides

View each slide and identify all structures according to anatomical features/characteristics.

1. Mammal Pancreas sec.
2. Tooth in Situ
3. Human Liver sec.
4. Mammal Salivary Glands Composite sec.
5. Esophagus and Stomach l. s.
6. Mammal Stomach Composite c. s.
7. Mammal Intestine Composite sec.

Supplemental Materials

Plastic models

Chart

Textbook (Chapter 24)

Google/Yahoo text and images

Exercise 23/Urinary System

Dr. Marvin E. Holtz
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All Terms/Definitions/Descriptions

Prefixes/Suffixes

All Structures and Associated Functions

Dissection of Cat (page 604)

Follow directions given by the instructor and described in the laboratory manual.
Locate, identify, observe, touch and feel all related anatomical structures.

Urine/Urinalysis (pages 606 -616)

No specific laboratory exercises/know terms, names of procedures and general information about each procedure...how each is conducted and what is assessed.

Microscope Slides

View each slide and identify all structures according to anatomical features/characteristics.

1. Human Kidney Sec.
2. Mammal Bladder Contracted Sec.

Supplemental Materials

Plastic models

Chart

Textbook (Chapter 26)

Google/Yahoo text and images

Exercise 25/Reproductive Systems

Dr. Marvin E. Holtz
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All Terms/Definitions/Descriptions

Prefixes/Suffixes

All Structures and Associated Functions

Dissection of Cat (page 653)

Follow directions given by the instructor and described in the laboratory manual.
Locate, identify, observe, touch and feel all related anatomical structures.

Microscope Slides

View each slide and identify all structures according to anatomical features/characteristics.

1. Uterus Human Progravid Phase Sec.
2. Penis Mammal C. S.
3. Human Epididymus Sec.
4. Fallopian Tube Fimbriated End Human C. S.

Supplemental Materials

Plastic models

Chart

Textbook (Chapter 28)

Google/Yahoo text and images