Exercise 1/Microscopy
Dr. Marvin E. Holtz
Human Anatomy and Physiology Lab I

All Terms/Definitions/Descriptions

Prefixes/Suffixes

All Structures and Associated Functions

Parts of the Microscope (page 1)

Each student will locate, identify and familiarize themselves with all of the parts and associated functions for each microscope part listed in the laboratory manual and/or those described by the instructor.

Rules of Microscopy (page 3)

Each student will familiarize themselves with the rules listed in the laboratory manual and/or those described by the instructor.

Setting up the Microscope (page 4)

Each student will follow the procedure for setting up the microscope described in the laboratory manual and/or those described by the instructor.

Using the Microscope (pages 4 to 6)

Each student will follow the procedure described in the laboratory manual and/or described by the instructor. Omit #10g (page 5) and #12 (page 6).

Magnification (page 6)

Each student will follow the procedure described in the laboratory manual and/or described by the instructor.

Supplemental Materials

Google/Yahoo text and images
Exercise 3/Cells
Dr. Marvin E. Holtz
Human Anatomy and Physiology Lab I

All Terms/Definitions/Descriptions
Prefixes/Suffixes
All Structures and Associated Functions

Cell Parts (pages 31 to 33)
Follow the procedure described in the laboratory manual and/or described by the instructor.

Diversity of Cells (pages 33 to 34)
Follow the procedure described in the laboratory manual and/or described by the instructor.

Movement of Substances Across and Through the Plasma Membranes (pages 34 to 40)
Each student is responsible for learning the terms, definitions and associated concepts in the section. There are no specific laboratory exercises scheduled for this section.

Extracellular materials (pages 40)
Follow the procedure described in the laboratory manual and/or described by the instructor.

Cell Division (pages 41 to 44)
Follow the procedure described in the laboratory manual and/or described by the instructor.

Supplemental Materials
Plastic models
Chart
Textbook (Chapter 3)
Google/Yahoo text and images
Exercise 4/Epithelial and Connective Tissue
Dr. Marvin E. Holtz
Human Anatomy and Physiology Lab I

All Terms/Definitions/Descriptions
Prefixes/Suffixes
All Structures and Associated Functions

Epithelial Tissue (pages 51 to 58)
Follow the procedure described in the laboratory manual and/or described by the instructor.

Connective Tissue (pages 58 to 65)
Follow the procedure described in the laboratory manual and/or described by the instructor.

Membranes (pages 65 to 66)
Each student is responsible for learning the terms, definitions and associated concepts. There are no specific laboratory exercises scheduled for this section.

Supplemental Materials
Charts
Textbook (Chapter 4)
Google/Yahoo text and images
Exercise 5/Integumentary System
Dr. Marvin E. Holtz
Human Anatomy and Physiology Lab I

All Terms/Definitions/Descriptions
Prefixes/Suffixes
All Structures and Associated Functions

Skin (pages 71 to 72)
Follow the procedure described in the laboratory manual and/or described by the instructor.

Hair (pages 72 to 75)
Follow the procedure described in the laboratory manual and/or described by the instructor.

Glands (pages 75 to 77)
Follow the procedure described in the laboratory manual and/or described by the instructor.

Homeostasis of Body Temperature (pages 78 to 79)
Each student is responsible for learning the terms, definitions and associated concepts. There are no specific laboratory exercises scheduled for this section.

Supplemental Materials
Plastic Models
Chart
Textbook (Chapter 5)
Google/Yahoo text and images
Exercise 6/Bone Tissue
Dr. Marvin E. Holtz
Human Anatomy and Physiology Lab I

All Terms/Definitions/Descriptions

Prefixes/Suffixes

All Structures and Associated Functions

Functions of Bone (page 83)
Each student is responsible for learning the terms, definitions and associated concepts. There are no specific laboratory exercises scheduled for this section.

Structure of a Long Bone (pages 83 to 84)
Follow the procedure described in the laboratory manual and/or described by the instructor.

Histology of Bone (pages 85 to 86)
Follow the procedure described in the laboratory manual and/or described by the instructor.

Chemistry of Bone (page 87)
There are no specific laboratory exercises scheduled for this section.

Bone Formation: Ossification (page 87)
Each student is responsible for learning the terms, definitions and associated concepts. There are no specific laboratory exercises scheduled for this section.

Bone Growth (pages 87 to 88)
Each student is responsible for learning the terms, definitions and associated concepts. There are no specific laboratory exercises scheduled for this section.
Fractures (page 88)

Each student is responsible for learning the terms, definitions and associated concepts. There are no specific laboratory exercises scheduled for this section.

Types of Bones (pages 88 to 89)

Follow the procedure described in the laboratory manual and/or described by the instructor.

Bone Surface Markings (pages 90 to 91)

Each student is responsible for learning the terms, definitions and associated concepts. There are no specific laboratory exercises scheduled for this section.

Supplemental Materials

Plastic Models
Chart
Textbook (Chapter 6)
Google/Yahoo text and images
Exercise 7/Bones
Dr. Marvin E. Holtz
Human Anatomy and Physiology Lab I

All Terms/Definitions/Descriptions
Prefixes/Suffixes
All Structures and Associated Functions

Bones of the Adult Skull (pages 95 to 98)
Follow the procedure described in the laboratory manual and/or described by the instructor.

Sutures of Skull (page 98)
Follow the procedure described in the laboratory manual and/or described by the instructor.

Fontanels of Skull (page 98)
Follow the procedure described in the laboratory manual and/or described by the instructor.

Paranasal Sinuses of Skull (page 98)
Follow the procedure described in the laboratory manual and/or described by the instructor.

Vertebral Column (page 98)
Follow the procedure described in the laboratory manual and/or described by the instructor.

Vertebrae (page 98 and pages 106 to 109)
Follow the procedure described in the laboratory manual and/or described by the instructor.

Sternum and Ribs (pages 109 to 110)
Follow the procedure described in the laboratory manual and/or described by the instructor.
Exercise 7/Bones
Page 2

Pectoral Girdles (pages 111 to 113)
Follow the procedure described in the laboratory manual and/or described by the instructor.

Upper Limbs (pages 113 to 116)
Follow the procedure described in the laboratory manual and/or described by the instructor.

Pelvic Girdle (pages 116 to 117)
Follow the procedure described in the laboratory manual and/or described by the instructor.

Lower Limbs (pages 117 to 123)
Follow the procedure described in the laboratory manual and/or described by the instructor.

Articulated Skeleton (page 123)
Follow the procedure described in the laboratory manual and/or described by the instructor.

Skeletal System of Cat (pages 123 to 124)
Omit this section.

Supplemental Materials
Articulated Human Skeletons
Disarticulated Human Skeletons
Adult and Fetal Skulls
Plastic Models
Chart
Textbook (Chapters 7 and 8)
Google/Yahoo text and images
All Terms/Definitions/Descriptions

Prefixes/Suffixes

All Structures and Associated Functions

Kinds of Joints (page 127)
Each student is responsible for learning the terms, definitions and associated concepts. There are no specific laboratory exercises scheduled for this section.

Fibrous Joints (page 127)
Each student is responsible for learning the terms, definitions and associated concepts. There are no specific laboratory exercises scheduled for this section.

Cartilaginous Joints (page 128)
Each student is responsible for learning the terms, definitions and associated concepts. There are no specific laboratory exercises scheduled for this section.

Synovial Joints (pages 128 to 134)
Each student is responsible for learning the terms, definitions and associated concepts. There are no specific laboratory exercises scheduled for this section.

Knee Joint (pages 134 to 135)
Follow the procedure described in the laboratory manual and/or described by the instructor.

Principal Joints of the Body (page 135 and pages 137 to 140)
Follow the procedure described in the laboratory manual and/or described by the instructor.
Supplemental Materials

Adult and Fetal Skulls
Plastic Models
Chart
Textbook (Chapter 9)
Google/Yahoo text and images
Exercise 9/Muscular Tissue
Dr. Marvin E. Holtz
Human Anatomy and Physiology Lab I

All Terms/Definitions/Descriptions

Prefixes/Suffixes

All Structures and Associated Functions

Types of Muscular Tissue (pages 143 to 144)

Each student is responsible for learning the terms, definitions and associated concepts. There are no specific laboratory exercises scheduled for this section.

Structure of Skeletal Muscle Tissue (pages 144 to 145)

Follow the procedure described in the laboratory manual and/or described by the instructor.

Contraction of Skeletal Muscle Tissue (pages 145 to 147)

Each student is responsible for learning the terms, definitions and associated concepts. There are no specific laboratory exercises scheduled for this section.

Laboratory Tests on Skeletal Muscle Contraction (pages 147 to 154)

Omit this section.

Biochemistry of Skeletal Muscle Contraction (pages 154 to 155)

Omit this section.

Electromyography (pages 155 to 156)

Omit this section.

Cardiac Muscle Tissue (page 156)

Follow the procedure described in the laboratory manual and/or described by the instructor.
Smooth Muscle Tissue (pages 157 to 158)

Follow the procedure described in the laboratory manual and/or described by the instructor.

Supplemental Materials

Plastic Models
Chart
Textbook (Chapter 10)
Google/Yahoo text and images
Exercise 10/The Muscular System
Dr. Marvin E. Holtz
Human Anatomy and Physiology Lab I

All Terms/Definitions/Descriptions
Prefixes/Suffixes
All Structures and Associated Functions

How Skeletal Muscles Produce Movement (page 165 to 166)
Each student is responsible for learning the terms, definitions and associated concepts. There are no specific laboratory exercises scheduled for this section.

Arrangement of Fascicles (page 166)
Follow the procedure described in the laboratory manual and/or described by the instructor.

Naming Skeletal Muscles (page 166)
Follow the procedure described in the laboratory manual and/or described by the instructor.

Connective Tissue Components (pages 166 to 167)
Follow the procedure described in the laboratory manual and/or described by the instructor.

Principal Skeletal Muscles (pages 167 to 217)
Follow the procedure described in the laboratory manual and/or described by the instructor.

Composite Muscular System (page 217)
Follow the procedure described in the laboratory manual and/or described by the instructor.

Dissection of Cat Muscular System (pages 217 to 236)
Follow directions given by the instructor and described in the laboratory manual. Locate, identify, observe, touch and feel all related anatomical structures.
Supplemental Materials

Plastic Models
Chart
Textbook (Chapter 11)
Google/Yahoo text and images
Exercise 12/Nervous Tissue
Dr. Marvin E. Holtz
Human Anatomy and Physiology Lab I

All Terms/Definitions/Descriptions
Prefixes/Suffixes
All Structures and Associated Functions

Nervous System Divisions (pages 265 to 266)
Each student is responsible for learning the terms, definitions and associated concepts. There are no specific laboratory exercises scheduled for this section.

Histology of Nervous Tissue (pages 266 to 268)
Follow the procedure described in the laboratory manual and/or described by the instructor.

Histology of Neuroglia (pages 268 to 269)
Each student is responsible for learning the terms, definitions and associated concepts. There are no specific laboratory exercises scheduled for this section.

Neuronal Circuits (pages 269 to 271)
Follow the procedure described in the laboratory manual and/or described by the instructor.

Reflex Arc (page 271)
Follow the procedure described in the laboratory manual and/or described by the instructor.

Demonstration of Reflex Arc (page 272)
Omit this section.
Supplemental Materials

Plastic Models
Chart
Textbook (Chapter 12)
Reflex Arc (Textbook…Chapter 13, pages 462 to 468)
Google/Yahoo text and images
Exercise 13/Nervous System

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

All Terms/Definitions/Descriptions
Prefixes/Suffixes
All Structures and Associated Functions

Spinal Cord and Spinal nerves (pages 275 to 290)
Follow the procedure described in the laboratory manual and/or described by the instructor.

Brain (pages 290 to 300)
Follow the procedure described in the laboratory manual and/or described by the instructor.

Cranial Nerves: Names and Components (page 300)
Follow the procedure described in the laboratory manual and/or described by the instructor.

Tests of Cranial Nerve Function (pages 300 to 304)
Follow the procedure described in the laboratory manual and/or described by the instructor.

Dissection of Nervous System (pages 305 to 313)
Follow the procedure for Dissection of Sheep Brain (pages 312 to 313) described in the laboratory manual and/or described by the instructor. Locate, identify, observe, touch and feel all related anatomical structures. Make use of general information and relevant diagrams on pages 305 to 313.

Autonomic Nervous System (pages 313 to 317)
Follow the procedure described in the laboratory manual and/or described by the instructor.
Supplemental Materials

Plastic Models
Chart
Textbook (Chapters 13 and 14)
Google/Yahoo text and images
All Terms/Definitions/Descriptions
Prefixes/Suffixes
All Structures and Associated Functions

Characteristics of Sensations (pages 323 to 324)
Each student is responsible for learning the terms, definitions and associated concepts. There are no specific laboratory exercises scheduled for this section.

Classification of Receptors (pages 324 to 325)
Each student is responsible for learning the terms, definitions and associated concepts. There are no specific laboratory exercises scheduled for this section.

Receptors for Somatic Senses (pages 325 to 327)
Each student is responsible for learning the terms, definitions and associated concepts. There are no specific laboratory exercises scheduled for this section.

Tests for Somatic Senses (pages 327 to 330)
Follow the procedures described for numbers 2, 3, 5 and 6 on pages 328 to 330 in the laboratory manual and/or described by the instructor.

Somatic Sensory Pathways (pages 330 to 332)
Follow the procedure described in the laboratory manual and/or described by the instructor.

Olfaction (pages 332 to 335)
Follow the procedure described in the laboratory manual and/or described by the instructor.
Gustation (pages 335 to 337)

Omit this section.

Vision (pages 337 to 346)

Follow the procedure described in the laboratory manual and/or described by the instructor.

Hearing and Equilibrium (pages 346 to 354)

Follow the procedure described in the laboratory manual and/or described by the instructor.

Sensory-Motor Integration (page 354)

Each student is responsible for learning the terms, definitions and associated concepts. There are no specific laboratory exercises scheduled for this section.

Somatic Motor Pathways (pages 354 to 356)

Follow the procedure described in the laboratory manual and/or described by the instructor.

Supplemental Materials

Plastic Models
Chart
Textbook (Chapter 17)
Google/Yahoo text and images