B-227 - Lab #1

Chapter 1: The Laboratory Environment

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| Pre-Lab Worksheet | p. 3 | Do |  |
| 1. pp. 1-22 |  | Read and Know | For general information |
| GROSS ANATOMY |  |  |  |
| 2. The Scientific Process of Discovery, pp. 4-8 |  | Understand | Scientific Method and Data Presentation |
| 3. p. 6 | Exercise 1.1 | Do | “The Scientific Method” |
| 4. p. 7-8 | Exercise 1.2 | Do | “Presenting Data” |
| 5. p. 15 | Exercise 1.5 | Do | “Proper Disposal of Laboratory Waste” |
| 6. pp. 23-26 |  | Do | Post-Lab Worksheet |

*Virtual Labs--- Virtual Labs Tutorial*

*Virtual Labs--- Lab Safety- Hand Washing Procedure*

Chapter 2: Orientation to the Human Body (and APR Module 1: Body Orientation)

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| Pre-Lab Worksheet | p. 29 | Do |  |
| 1. pp. 27-39 |  | Read and Know | For general description of terminology |
| GROSS ANATOMY |  |  |  |
| 2. Anatomic Terminology, Anatomic position, Anatomic Planes and Sections, pp. 30-32 | Figs. 2.1, 2.2, 2.3 Table 2.1 | Know | Fig. 2.1, know all  Fig. 2.2, know all  Table 2.1, know all |
| 3. pp. 31-32 | Exercise 2.1 | Do | “Anatomic Planes and Sections”  Fig. 2.2, know all  Fig. 2.3, know all |
| 4. Directional Terms, p. 33 | Table 2.2 and Fig. 2.4 | Know |  |
| 5. p. 33 | Exercise 2.2 | Do | “Directional Terms”  Fig. 2.4, know all |
| 6. Regional Terms, pp. 34-35 | Table 2.3 and Fig. 2.5 | Know | Regional Terms (know Table 2.3 plus all terms in Fig. 2.5) |
| 7. p. 35 | Exercise 2.3 | Do | “Regional Terms”  Fig. 2.5, know all |
| 8. Body Cavities and Membranes, pp. 36-37 | Fig. 2.6 | Know | Body Cavities and Membranes (know all) (also know serous membranes and look up mucous membranes as homework) |
| 9. p. 36 | Exercise 2.4 | Do | “Body Cavities”  Fig. 2.6, know all |
| 10. Abdominopelvic Regions and Quadrants, pp. 38-39 | Fig. 2.7 | Know | Abdominopelvic Regions and Quadrants |
| 11. pp. 38-39 | Exercise 2.5 | Do | “Locating Major Body Organs Using Abdominopelvic Region and Quadrant Terminology”  Fig. 2.7, know all |
| 12. Organ and Organ System Identification | 11 major organ systems | See your lecture textbook, Fig. 1.3 | {know what organs belong to each of these systems and be able to locate them on the torso model images on lab PPT}Integumentary System, Skeletal System, Muscular System, Nervous System, Endocrine System, Cardiovascular System, Lymphatic System (and Immune System), Respiratory System, Digestive System, Urinary System, Reproductive Systems.    Locate these organs and/or structures on torso model images on lab PPT and know correct placement of organs in the body cavities for the following organs: brain, spinal cord, thyroid gland, trachea, pharynx, esophagus, oral cavity, heart, aorta, vena cava, lungs, stomach, pancreas, duodenum of small intestine, small intestine, large intestine, appendix, ascending colon, transverse colon, descending colon, sigmoid colon, rectum, anus, spleen, liver, gallbladder, kidney, adrenal gland, urinary bladder, ureter, urethra, testes, ovaries, uterus. |
| 13. pp. 40-42 |  | Do | Post-Lab Worksheet |

Chapter 3: The Microscope

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| Pre-Lab Worksheet | p. 45 | Do |  |
| 1. pp. 43-54 |  | Read | For general description and terminology |
| HISTOLOGY |  |  |  |
| 2. The Compound Microscope and Caring for the Compound Microscope | Figs. 3.1, 3.2, 3.3 | Know |  |
| 3. pp. 47-48 | Exercise 3.1 | Do | “Parts of a Compound Microscope”  Fig. 3.2, know all  Fig. 3.3, know all  Table 3.1, know all |
| 4. Focus and Working Distance, pp. 49-50 | Table 3.2 | Know | Table 3.2, read and comprehend (learn to troubleshoot for yourself) |
| 5. pp. 49-50 | Exercise 3.2 | Do | “Viewing a slide of the letter ***e”*** (know: *total magnification* and *working distance*)  Fig. 3.4, know all |
| 6. Diameter of the Field of View, pp. 50-52 | Fig. 3.5 | Know |  |
| 7. p. 51 | Exercise 3.3 | Do | “Measuring the diameter of the field of view” |
| 8. p. 51-52 | Exercise 3.4 | Read and know | “Estimating the size of a specimen” (just know the concept, do not do the measurements)  Fig. 3.5 |
| 9. Depth of Field, p. 52 | Fig. 3.6 | Know |  |
| 10. p. 52 | Exercise 3.5 | Do | “Determining depth of Field” (know: *depth of field*) Use the silk fiber slides |
| GROSS ANATOMY |  |  |  |
| 11. The Dissecting Microscope, pp. 53-54 | Fig. 3.7 | Know | Fig. 3.7, know all on the lab microscopes |
| 12. p. 54 | Exercise 3.6 | Demo Scope | “Parts of a dissecting microscope” |
| 13. pp. 55-56 |  | Do | Post-Lab Worksheet |

*Virtual Labs--- Microscopy- Operation of Brightfield Microscope*

**Read chemistry experiment in Blackboard lab notes for next lab.**

**1. Move the stage to its lowest point to maximize the distance between the stage and the objectives.**

**2. Lock the scanning objective (4X) into place directly over the stage opening.**

**3. Position the mechanical stage so that no part, except the control knobs, are resting off the stage.**

**4. Turn the power switch OFF before unplugging microscope**

**(this increases the life of the bulbs, which are very expensive).**

**5. Unplug the power cord and fold it so that it can be secured with a rubber band. DO NOT wind the cord around the microscope in any fashion; it can damage the objectives and the mechanical stage.**

**6. Place your microscope into the numbered cubicle corresponding to the number on your microscope’s arm.**