

IRSC – General Biology I Lab: Dr. Cottrell-Yongye

BSC 2010L – Study Guide for Practical 1

-Lab Safety

Know procedures for waste disposal (regular trash, biohazard trash, and broken glass)

Know policies regarding food/drink in lab

-Lab maintenance

Know what is done before and after each lab

-Be comfortable with the metric system!

Be able to measure, weigh, convert (for example: from centimeters to millimeters)

Be comfortable with measuring with rulers/meter sticks (length), mass balances (mass), and graduated cylinders (volume)

Understand how to calculate volume using water displacement

Know the correct method for measuring volume in a graduated cylinder

- Microscope

Know parts

Know how to properly store

Know how to determine magnification

Know the difference between looking at plant cell vs animal cell under the scope

Examples: Check cells, onion cells, elodea cells

- Know cell theory

Know the difference between prokaryotic and eukaryotic cells

For example, are bacteria prokaryotic or eukaryotic cells?

- Cell structure

Be comfortable with cell models

Need to identify structures (such as the organelles) AND state functions

Know differences between plant and animal cells

Review page 11 and 12 in packet

- DNA Isolation

Review procedure done on page 13 (Bio I Lab packet) and understand the three major steps in DNA isolation

pH and cells

Be familiar with experiment – what is a buffer?; which sample showed greatest buffering capacity?