I. OBJECTIVES AND PREPARING FOR LAB

1. Preparing for Lab:
   a. Carefully read the text associated with the lab exercises listed above. Be sure to read the introductory pages at the beginning of each chapter as well as the specific experimental procedures.
   b. Familiarize yourself with the terms printed in bold print in the introductory pages and in each specific exercise.

2. Objectives: At the end of this lab, you should be able to do the following:
   a. Identify the modes of locomotion, feeding, and reproduction characteristic of the phyla Porifera and Cnidaria.
   b. Locate, identify, and state the function of the major structures found in those two phyla.
   c. Describe the patterns of water flow through the sponge and its significance in feeding, respiration, water elimination, and reproduction.
   d. Identify by common and scientific names the representative poriferans and cnidarians studied in this lab.
   e. Describe the evolutionary position of the phyla Porifera and Cnidaria on the phylogeny of the major animal phyla.

WHILE DOING THE LAB EXERCISES, ANSWER ALL QUESTIONS AS YOU ENCOUNTER THEM IN THE LAB MANUAL, RECORDING YOUR ANSWERS IN THE SPACE PROVIDED.

II. EXPERIMENTAL PROCEEDURES

1. Working individually, complete Ex. 6.1 – 6.2, Ex. 7.1 – 7.2.
2. Working in pairs, complete Ex. 7.3, the Metridium dissection.

III. ASSESSMENT (10 points)

1. Pre-Lab Quiz (5 Points): There will be a quiz on this lab at the beginning of the lab. To prepare for the quiz, you should carefully review the taxonomy and key terms to be covered during this week’s lab.
2. Exit Quiz (5 Points): An exit quiz on this lab will be administered when you have completed the lab exercises. This quiz will cover taxonomy, information learned during the exercises, and key terms.

NOTE: Students who arrive late to lab will not be given additional time to complete the pre-lab quiz. Those who arrive after the quiz has been collected will not be permitted to take the quiz and will be scored a zero (0) for the quiz. Students who fail to complete the lab exercises or leave lab early may not be permitted to take the exit quiz.

IV. KEY TERMS

Upon completion of these exercises you should be able to describe the taxonomic organization of the Phyla Porifera and Cnidaria and locate, identify, and give the function for the structures listed below.

**Phylum Porifera:**
- asconoid/ascon
- syconoid/sycon
- leuconoid/leucon
- osculum/oscula
- spicules
- spongocoel
- ostium/ostia
- apopyle
- osulum
- incumbent canal
- radial canal
- amoeocyte
- choanocyte
- pinacyte
- porocyte
- gemmules

**Phylum Cnidaria:** All terms listed in Tables 7.1–7.5.