Assignment one:

It is impossible to take a course in invertebrate biology without some background in biology.   The study of biology involves learning a language.   A former Duke professor estimated that the new terms introduced in one semester of introductory biology, were equivalent to several times that learned in one semester of a language.   And with that language of biology, you also learned important principles that you had to apply in all the biology courses you took since then. Give yourselves a big pat on the back. I’m not trying to be patronizing. You mastered a lot of material.

We are going to be reviewing some of those terms. So we can start with a common base of descriptors, to compare the invertebrate groups we are going to study.  
  
 I am going to ask you in this first assignment to re-learn and modify as appropriate the terms used in the 181 Laboratory on invertebrates.

1. Start by reading that lab exercise long ago that tried to introduce invertebrates to you. I want you to develop a mental picture of each of the clades. **You are to fill out a table that lists each clade (available as separate download on the schedule). To do so, you will need to annotate a free hand drawing of a representative (only one) of that clade.**

**Be prepared to share your drawing at our zoom session next week**. I will be able to allow you to share your screen. If you plan to join the lecture via smartphone or tablet, email me a scanned pdf or pic of your drawings by Wednesday morning. Be sure to put your name on it.

Please add limbs, skeletons and segmentation to the pictures if appropriate. Comment on whether this representative has a coelom. We will use your drawings in class to discuss these terms. We will ignore characterizing larvae type and life cycles for now, but note on that picture, what you think your typical representative eats and how it moves. For example, this critter crawls with body touching surface.

Here are some urls, to help you familiarize yourself with typical representatives. **Yes you still have to draw one representative in each group even after examining the material on these websites. . I expect your sketches to be rough. Do not simply paste copies of pictures from websites.**

You will probably have to cut and past the following urls into your browser. Sometimes linking to a website works in Microsoft Word and sometimes it doesn’t.

<http://www.earthlife.net/inverts/an-phyla.html>

<https://en.wikipedia.org/wiki/Invertebrate>

<https://ucmp.berkeley.edu/help/taxaform.html>

Use the link to the old version of the webpage and simply use links to phyla (clade) of interest.

<https://www2.palomar.edu/users/warmstrong/trnov01.htm>

Scroll down to descriptions of animal phyla (clades) of interest

2. For the last part of the zoom session, we are going to add to the definitions you learned in 181.

Review the web pages associated with a. Tissues and b. Coeloms.

Be prepared to discuss

What’s the big deal with mesoderm?

What functions can we assign to coeloms?

Do eucoelomates always have a “true” coelom as adults?

3. Read the webpage on bauplans. If there is time, we will start discussing the usefulness of the term.

Does bauplan equal niche?

What is the bauplan concept useful for anyway?

Just prepare for 2 and 3 by examining the pertinent webpages, 2 or 3 times. **Try to understand the diagrams. Again, examine them, so read the associated text. Don’t just skim these pages.**