**Unit 10 – Diversity in Transport- Week 2**

**Instructions:** Read the background material for this unit (pages 183-195) and then complete each of the activities associated with week 2 of the Transport lab. These activities match those in the lab manual. Videos, simulations, and images necessary for completing the activities are located on the lab website.

No Assignment is due this week, but lab content will be important for the 20 point lab Unit Quiz IV/Assignment in Lecture Moodle April 23 (sect. 001) and 24 (sect. 002), 2020. This will cover The Nutrition lab (Unit 9) and Transport I and II (Unit 10).

**Activity #1:** *Heart Structure and Double Circulation*

1. Review the background material on page 183 – 184 and the lab website. The text and labeled diagrams in the lab manual will be quite helpful with identifying the major structures and their functions in mammalian hearts.
2. Answer the Questions 1 & 2 on pages 193-194.
    a. Question #1 page 193, label the key structures on the images of the heart model: Left atrium
    i. Right atrium
    ii. Left ventricle
    iii. Right ventricle'
    iv. Atrial-ventricular valves (bicuspid & tricuspid valves)
    b. Question #2 page 194, label the major heart structures above AND the aorta, pulmonary artery, pulmonary vein and the vena cava.
    c. Use a dotted line to trace the pulmonary circulation and a solid line to trace systemic circulation.
    v.

**Activity #2:** *Heart Function and ECG.*

1. Review the background material on page 185-187 and on the lab website.
2. Examine figure 10-12 of an ECG waveform. Be able to equate what is happening in the hearts at each of the main parts of the wave (P, QRS complex, and T). Look at actual examples of ECG waveforms on the lab website and be able to label the waveforms.
3. In looking at actual ECGs, be able to calculate Beats Per Minute (BPM).
4. Since we will not be able to record ECGs on students, we have provided a link to an online ECG training website that further explores many facets of interpreting ECG waveforms.
5. Answer Questions 1 and 5 on pages 191-192.

**Unit 10 (weeks I and II) Questions:** page 195

1. Answer # 1 and 2.