**Review for Exam Four, BSC 182**

Please note that this review does not cover ALL of the material discussed in the lecture notes. *It is meant as a guide only*. Exam questions will come from the lecture material, not this review. Please be familiar with all of the topics we discussed in lecture.

1. What are the four processes of respiration?
2. Compare internal respiration to external respiration
3. Compare the respiratory zone to the conducting zone
4. Functions and locations of the
   1. Nose
   2. Nasal cavity
   3. Paranasal sinuses
   4. Pharynx
      1. All regions
   5. Larynx
      1. Which cartilage is paired versus single
      2. Which cartilage is hyaline versus elastic
      3. Vocal ligaments
         1. True
         2. False
      4. Valsalva Maneuver
   6. Trachea
      1. Layers
   7. Bronchi
      1. Types
      2. Layers
   8. Lungs
      1. Lobes
      2. Fissures
      3. Apex
      4. Base
      5. Hilum
      6. Root
      7. Alveoli
      8. Type II cuboidal cells
      9. Respiratory membrane
5. Compare pulmonary circulation to (systemic) bronchial circulation
6. Compare visceral and parietal pleura
7. Compare intrapulmonary pressure to intrapleural pressure.
8. What are the opposing forces in the lungs?
9. What causes lung collapse?
10. Compare resting inspiration to resting expiration, forced expiration
11. Discuss the factors that influence pulmonary ventilation
12. How does surface tension affect
    1. Alveoli
    2. Pleural membranes
13. What changes compliance?
14. Review the respiratory volumes and the respiratory capacities
15. What are some non-respiratory air movements
16. Review ventilation perfusion coupling
    1. What changes need to be made if ventilation is low?
    2. If ventilation is high?
17. How is oxygen transported?
18. What is oxygen’s relationship with hemoglobin?
    1. What factors alter that relationship
19. How is Carbon Dioxide transported?
20. Where is carbonic anhydrase located? Why is this important?
21. What is the chloride shift? What does it accomplish?
22. What is the relationship between carbon dioxide and pH
23. How is respiration controlled?
24. What does the Hering –Breuer reflex accomplish?
25. What respiratory changes are seen
    1. with exercise?
    2. With increase elevation?
26. Review the disorders:
    1. COPD
    2. Asthma
    3. Tuburculosis
    4. Lung cancers















