

The goal of this project is for students to demonstrate a basic understanding of animal (human) body structure/function. During the last two days of class, each student will put together a written report demonstrating an understanding of animal body structure and organization, as well as an overview of the basic body systems. The final report may be hand written and is due by the beginning of Exam 4 (Thursday July 27th), but you are encouraged to complete it during class on July 26th so you can focus on the exam. Several reference textbooks will be provided for use, and I be available for guidance, discussion, questions, or other assistance during those class periods. You are encouraged to collaborate with other students, but each student will submit their own individual report.

Some points for this assignment are based on your interactions with the instructor and other students while working in class! *Check in with the instructor at least once each day while you are putting together your report to maximize points and stay on the right track!*

Report Structure

Each report will be worth **80 pts** and must include the following components:

1. **Basic Human/Vertebrate body structure** – Describe the architecture and function of the human body and how it compares to other animals. Two paragraphs along with one or more diagrams is sufficient. In addition to your descriptions, include answers to the following questions:

- A. What conceptual levels of organization are found in animal bodies?
i.e. Cells → ? → ? → ? → ?
- B. What basic parts/structures make up an animal body?
- C. How are the body plans of other animals similar/different compared to humans?

2. **Overview of Body Systems** – Provide a conceptual overview of the body systems listed below, including 1) basic function(s) and organization of that body system, and 2) major organs that make up that system, including the specific role(s) of each. A paragraph along with a diagram (or two) should be sufficient for each.

Body Systems required for report:

1. Endocrine (be sure to include the term **homeostasis**)
2. Digestive
3. Circulatory and Respiratory
4. Musculoskeletal
5. Nervous

3. Choose one of the following options:

A. Human reproduction and development

Describe the process and stages in human/mammal reproduction including the development of a zygote into an adult organism.

B. Immune System

Describe the role(s) and function(s) of the vertebrate immune system as for the other body systems (see above).