Endocrine System:
What is the definition of a hormone?
What are the different ways in which glands are stimulated (humoral, glandular, neural)?
What are the 2 classes of hormones and how do they differ?
What are second messenger systems and how do they work?
Be able to identify the various endocrine glands.
Know the secretions of all the endocrine glands and what they do.
Know the hypothalamic releasing hormones & what they stimulate the pituitary to secrete.
What is up-regulation and down-regulation?
Why are hormones specific to one cell type in the body?
What are the 2 types of diabetes mellitus and their causes?

Blood:
What are the general functions of blood (regulatory, distribution, protection)
What are the different components of blood (formed elements, RBC’s, etc.) & their percentages?
Know the structure and function of erythrocytes (RBC’s).
What are the steps in erythropoesis and what stimulates it? Where does it occur?
What is the life span of an RBC?
What are the two classes of leukocytes?
Be able to identify all of the different types of leukocytes.
Know the functions of the different types of leukocytes.
What is the normal pH of blood?
What are the different types of plasma proteins?
Know your blood typing (antigens, antibodies, transfusions, etc.).
What is erythroblastosis fetalis and what causes it?
What is sickle cell anemia and what causes it?
Know what happens in the 3 general stages of hemostasis.

Heart Structure:
How are heart muscle cells similar to skeletal muscle cells
Know the structure of the heart and functions (chambers, valves, vessels, etc.).
What are papillary muscles and what do they do? Chorda tendonae?
Know the blood flow through the heart.
Be able to identify the different parts of the cardiac conduction system.
Be able to identify the different parts of the cardiac cycle (EKG) and what they correspond to.
What do the “Lub-Dup” heart sounds correspond to?
What factors influence heart rate?