**Anatomy & Physiology**

**1st Semester Overview**

This semester we began a grand tour of God’s incredible creation, the human body. We have beheld fantastic views of its form and function, beginning at the chemical level, and working through the intricate masterpiece of each body system.

Truly, our goal in this course is to catch a glimpse of the big picture. How much can we grasp of God’s awesome work from cell to soul? At least, we can tangibly investigate all but the soul; but we still have our work cut out for us. To this end, I would like to say that your student is undertaking an incredible task in completing the textbook. Even though we can hardly deal with all the details in the text, simply going from cover to cover with the myriad of concepts and overviews will be a monumental accomplishment. Pray for these kids – they not only have to withstand the grueling journey through the assigned pages, but they must endure my anecdotal meanderings through my clinical experience in dentistry and patient care. They will be stronger for it, I am sure.

We started the semester with the general organization of the body and (seemingly) hundreds of new anatomical definitions, terms, and descriptions. After a whirlwind overview of biochemistry, cellular anatomy and physiology, and tissue types, we began our systematic march through the human body, with regard to function and structure.

Lab and lecture covered the following topics. The study of the skin and its appendages included skin homeostasis, burns, hair, nails, and glands. Under skeletal tissues we studied bone and cartilage, including an in-depth look at each example. Articulations included joints, movements, and disorders. The muscular system included muscles and their movements, posture, and mechanisms of movement on the cellular level. The nervous system study included the brain, spinal cord, cranial and peripheral nerves, neurotransmitters, and reflexes. The sense organ review included somatic sensory receptors, and the organs of smell, taste, hearing, sight, and balance. The endocrine section included glands, and hormonal actions and interactions. We studied blood elements, plasma, and blood type interactions. We ended the semester with a study of the cardiovascular system, which included the heart and the circulatory vessels. Because of the vast amount of information covered, the cardiovascular system will actually be included on the third quarter testing, instead of the first semester exam.