Lecture 1 Oral **Physiology Dr. Muna**

**Introduction:**

**Physiology** is a branch of science concerns with the body functions, in other words, how the body parts work and carry out their life-sustaining activities.

Like anatomy, physiology has many subdivisions, most of which consider the operation of specific organ systems. For example:

Renal physiology concerns kidney function and urine production.

Neurophysiology explains the working of the nervous system.

Cardiovascular physiology explains the working of the heart and blood vessels.

While anatomy provides us with a static image of the body’s architecture, physiology reveals the body’s dynamic and all these systems are interconnected.

Physiology often focuses on events at the cellular level. This is because the body’s abilities depend on those of its individual cells; the body is built of cells.

Cell: is defined as the smallest structural unit of the body which are grouped together to form tissues and different types of tissues form organs. These organs collect to form systems.

The heart, blood, blood vessels form the cardiovascular systems.

The lungs and air passages together with respiratory muscles form the respiratory system.

The digestive system converts the food taken by the mouth into the suitable form for growth and repair the tissues and for production of heat and energy.

The body functions controlled by two parts:

1. The ***endocrine glands*** produce hormones or chemical messengers which circulate by the blood stream to act as distant organ.

2. The ***nervous system*** conveys the information along the nerves in the form of nerve impulse. There are two types of nervous systems central and peripheral nervous system. The central nervous system consists of brain and spinal cord while the peripheral nervous system consists of cranial nerves and spinal nerves.

The cells’ abilities ultimately depend on the chemical reactions that go on within them. Physiology also rests on principles of physics, which help to explain the way muscles use bones to cause body movements. Basic chemical and physical principles are needed to explain physiological topics.