

# Physiology

## Hematology course

### Introduction:

- Blood composition
- Blood function
- Plasma proteins (majors) (M.W and concentrations)

### **Erythrocyte (Red blood cell):**

- Shape , size , dimensions of normal erythrocyte
- Function of RBC
- Number /  $\mu\text{l}$  and PCV (HcT)
- Erythropoiesis (Red cell production)

### **Hemoglobin (definition) concentration / dl)**

- Structure of Hb
- Normal human Hb genetic variants

### **Leukocytes (White blood cells)**

- Cell types
- The approximate concentration ( $\mu\text{l}$  of blood and the (%) distribution of the different cell types )
- Physiological variations in leukocyte count

### **Thrombocytes (Platelets):**

- Production and approximate concentration ( $\text{Ml}$ )
- Structure and survival time
- Platelet function (Hemostasis)

### **Fibrinolysis:**

### **Thrombosis**

- Differentiate between thrombus and embolus

### **Anticoagulants (Invivo and Invitro)**

Blood groups:

Blood transfusion:

V1. Body fluid

.VII. The Lymphatic System

**Textbooks:**

- 1- Textbook of Medical Physiology Eleventh Edition by Guyton & Hall
- 2- Review of Medical Physiology by William F. Ganong