

## **NP18-21 PHYSIOLOGY 1**

### **Aims of the course:**

Knowledge of the physiological function of the circulatory, respiratory and urinary system of the human body

### **Skills:**

### **Teaching methods:**

All of the mechanisms of these systems in conjunction with basic anatomical concepts associated with the above functions. Laboratory exercises: their content refers to key sections of the above-mentioned systems. Use of Video projection and simulation programs to PCs. more detailed analysis on the targets of the course reported on the websites: <http://www.experimentalphysiology.gr> and <http://physiology.med.auth.gr>. At the end of the exercises examinations are carried.

**Contents of the course:** Cell and fluid homeostasis. Membrane transfer. Physiology of nerve and muscle stimulators. Heart and circulation, heart electro-physiology. Flow, pressure and resistance, the heart as a pump. The distal movement. Pneumonic ventilation, perfusion and diffusion of gases. Mechanics of breathing. Glomerular filtration and kidney clearance. Renal transport Mechanisms of concentrating and diluting of urine. Setting the volume and osmolarity of extracellular fluids. Setting the acid-base balance by the kidneys

### **Proposed literature:**

### **Educational activities:**

Lesson from the amphitheatre: learning the functioning of these systems in conjunction with basic anatomical concepts associated with the above functions. Laboratory exercises: the familiarization of students in methodology on issues contained in the material of the theoretical lesson.

### **Evaluation process and methods:**

**Use of ICTs (Information and Communication Technologies) / Electronic distribution of the lectures**

### **Teaching:**

The teaching of the course are lectures and exercises.