

2015-2016 Güz ve Bahar Eğitim-Öğretim Yılı Biyofizik Anabilim Dalı
İngilizce Dönem II Ders İçeriği

NEUROSCIENCE COURSE GROUP

Interdisciplinary Sciences and Biophysics

Dr. N. Seyhan- Dr. Sırav Aral

2 Hr

Visible light and optical components of eye
How is the journey of light coming into the eye ?

Dr. Sırav Aral

2 Hr

Retina and its photoreceptor cells, receptor potentials
Visual cycle

Dr. Sırav Aral

2 Hr

Introduction to Hearing Biophysics

Dr. Sırav Aral

2 Hr

Ear: Outer – Middle and Inner ear – Membrane Bazılar

Dr. Sırav Aral

2 Hr

RESPIRATION- CIRCULATION COMMITTEE

Forces on active erythrocytes
Stoke's Law

Dr. Sırav Aral

2 Hr

Pressure in Circulation System: Bernoulli Law,
Velocity and Flow in internal frictional flowing :
Poiseuille Law

Dr. Sırav Aral

2 Hr

Training, Changes in Pressure-velocity and Kinetic Energy
due to Pathological contraction of arteries

Dr. Sırav Aral

2 Hr

Laplace Law and auto regulation of pressure

Dr. Sırav Aral

2 Hr

Respiration system and its dynamic properties
Gas laws related with respiration, application of
Poiseuille and Laplace Laws in respiration system

Dr. Sırav Aral

2 Hr

Surface tension and alveolus mechanics
Compliance in lung and breast

Dr. Sırav Aral

2 Hr

DIGESTION AND METABOLISM COMMITTEE

System: Energy and metabolic rate
in biological systems

Dr. Sırav Aral

2 Hr

Thermodynamic systems, Enthalpy and Entropy:

Open, Close and Isolated systems

Dr. Sırav Aral

2 Hr

Heat Regulation and Transfer Mechanisms:

Heat Transfer by Transmission, Convection and Radiation

Fourier and Newton Heat Transmission Laws

Dr. Sırav Aral

2 Hr

CELL AND TISSUE INJURY AND PRINCIPLES OF PHARMACOLOGY COMMITTEE

Principles of Medical Imaging

Dr. Sırav Aral

2 saat

X-Ray and Imaging Techniques in Nuclear Medicine

Dr. Sırav Aral

2 saat

Ultrasound in Imaging , Magnetic Resonance Imaging and Others

Dr. Sırav Aral

2 saat

EMG and electroretinogram

Dr. Canseven Kurşun-Dr. Eşmekaya

1 saat