

Study Guide for AP1, Exam 1 - Homeostasis, Control Mechanisms, Cell Membranes, and Membrane Transport

Page #s indicate where the topic starts. First page # is 7th edition, 2nd page # is 8th edition.
Topics are same for online course. 1st Lecture, 2nd Lecture, etc. titles become irrelevant.

1st Lecture

Course Overview

Anatomy vs. Physiology

OYO: Levels of Structural Organization p. 3/3

OYO: Organ Systems and functions p. 6/6

Homeostasis p. 9/8

Variables, Set Points, Normal Ranges

Homeostatic Control Mechanisms

1. Negative Feedback mechanisms
2. Positive Feedback mechanisms

2nd Lecture

Plasma Membrane Structure - The Fluid Mosaic Model p. 65/63

1. Lipid Bilayer
 - Phospholipids, Cholesterol, & Glycolipids
2. Proteins
 - A. Integral Proteins
 - Channel proteins
 - Ligand-gated channels
 - Voltage-gated channels
 - Carrier proteins
 - Receptors for signal transduction
 - B. Peripheral Proteins
 - Biological markers for cell recognition

Membrane Transport p. 69/68

Concentration, Concentration Gradients, Equilibrium

Passive Processes

Diffusion

1. Simple diffusion
2. Facilitated diffusion

Osmosis

Osmotic Pressure

Tonicity

hypertonic, isotonic, hypotonic

Filtration

3rd Lecture

Membrane Transport (cont.)

Active Processes

Primary Active Transport

Vesicular Active Transport

Exocytosis

Endocytosis

a. Phagocytosis

b. Pinocytosis

Specificity

Competition

Saturation

Transport Maximum

4th Lecture

Organic Compounds p. 44/42

OYO from handout: Carbohydrates, Lipids, and Proteins

Tissue types

Epithelial

Muscular

Nervous

Connective

Chemical Reactions p. 37/35

Synthesis

Decomposition

Exchange

Oxidation-Reduction

5th Lecture - EXAM #1