



### MEMBRANES & TRANSPORT

#### Contents

#### **Learning Objectives**

Describe the components and basic structure of the plasma membrane, and explain what is meant by the fluid-mosaic model.

Explain how a cell membrane regulates interactions within environments.

Differentiate between diffusion, osmosis, and dialysis.

Describe the solute/solvent movements into and out of a cell under hypertonic, hypotonic, and iso-tonic conditions.

Explain and give examples of generalized endocytosis and exocytosis

Understand the importance of selective permeability in biological systems.

Differentiate among diffusion, facilitated diffusion and active transport.

Describe the operation of the  $\text{Na}^+$ -  $\text{K}^+$  pump

Compare and contrast cilia and flagella in terms of their structure and function.

List and describe the various junctions, linkages, and connections that occur between cells.

Understand the biochemistry of phospholipids and how they are organized into membranes.