

Day 04 – 2/5/14

Student Learning Objectives

By the end of this class you will be expected to understand:

- The major organelles common to all human cells
- The nature of exceptions to the general rules of organelles
- The concept of energy use to maintain homeostasis
- The major molecules used for cellular energy
- The complete three-step process of ATP production

Support videos:

- Parts of the Cell
 - <http://www.youtube.com/watch?v=cj8dDTHGJBY>
 - <http://www.youtube.com/watch?v=rABKB5aS2Zg>
- Cellular Respiration
 - http://www.youtube.com/watch?v=00jbG_cfGuQ
 - <http://www.youtube.com/watch?v=VCpNk92uswY>

Assigned reading:

- Chapter 3, pages 61-75

Vocabulary:

- Homeostasis
- Nucleus
 - Anucleate
- Cytoskeleton
- Ribosome
- Endoplasmic Reticulum
 - Rough endoplasmic reticulum
 - Smooth endoplasmic reticulum
- Golgi Apparatus
- Mitochondrion
 - Mitochondria (*plural*)
 - Aerobic
 - Anaerobic
 - Adenosine Triphosphate (ATP)
 - Adenosine Diphosphate (ADP)
 - Glucose
- Glycolysis
- Krebs Cycle
 - Citric Acid Cycle (*synonym*)
- Electron Transport Chain
 - ATP Synthase