

Spokane Falls Community College

COURSE LEARNING OUTCOMES

Prefix and Course Number: CHEM&123
Course Title: Intro to Biochemistry with Lab
Version Date: 4/2/2019

Course Learning Outcomes

Upon successful completion of the course, the student will be able to:

1. Draw or describe the structure of amino acids, proteins, enzymes, chemical messengers, carbohydrates, lipids, and nucleic acids.
2. Explain the function of the above listed biomolecules.
3. Explain how biochemical energy is generated in the cells using principles of thermodynamics (free energy, enthalpy). Write coupled reactions to show how an endergonic reaction can occur by coupling it with a very exergonic reaction.
4. Write the chemical reactions involved in biochemical pathways that produce ATP, such as citric acid cycle and electron transport.
5. Describe the metabolism of carbohydrates, lipids, proteins and amino acids. Write chemical reactions for the individual steps in each pathway.
6. Perform pertinent laboratory experiments, record observations, analyze data, and present the results in written form.