

The Learning Company
Physiology 1 (Massage Therapy) – Student Outline

COURSE DESCRIPTION:

This course will provide an understanding how cells, tissues, organs and organ systems function together to create one organism. A key goal is to become familiar with normal physiology to be able to comprehend pathological conditions as presented later in the program.

DURATION: **90 Hours**

TEXTBOOK/RESOURCES:

- *Principles of Anatomy and Physiology*, John Wiley & Sons, Inc.
- Materials as provided by the Instructor

COURSE OBJECTIVES:

After completing this course, you will be able to:

- Describe the function and structure of major body systems.
- Classify the systems that support homeostasis in the functional organization
- Describe the difference between normal physiological processes
- Describe the function and structure of major body systems.
- Identify macromolecules, the components and functions of macromolecules, carbohydrates, lipids, proteins and nucleic acid, and describe the functions of each.
- Identify various ions and describe their function in the body.
- Define pH, acid/base balance and explain its relevance to homeostasis.
- Describe the functions of biological enzymes.
- Identify the four major types of body tissues and describe the structure, functions, and characteristics of each type.
- Describe embryology, germ layers and their derivatives.
- Describe characteristics and functions of epithelia and endothelial tissues.
- Describe the composition of cartilage, the types of cartilage and their functions.
- Describe the components of bone and contrast structure of compact and spongy bone.
- Describe the histology of blood cells and red bone marrow
- Describe the structure of a generalized cell.
- Describe the functions of major sub-cellular organelles.
- Describe passive and active cellular transport mechanisms.
- Describe the role of enzymes in the regulation of cell functions and reproduction.
- Describe general transport and metabolic functions of the cell.
- Describe the basic structure of DNA and the genetic code.
- Summarize the regulation of protein synthesis.
- Summarize the processes of cell growth and differentiation.
- Compare the processes of mitosis and meiosis.
- Use appropriate medical/technical vocabulary when speaking to other professionals.
- Use language and lay terminology appropriate to client level of comprehension

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KEY TOPICS:

- The Chemical and Physical Basis of Life
- The Cell
- Tissues
- Cellular Metabolism

EVALUATION:

Each student's performance is evaluated based on the satisfactory completion of all exercises and assignments to the standard set by the instructor as well as achieving a passing grade on all tests. The passing grade for this subject is 70%.

Tests	70%
Final exam	30%