

SPRINGFIELD TECHNICAL COMMUNITY COLLEGE

ACADEMIC AFFAIRS

Course Number: BIOL 146 Department: Biological Sciences

Course Title: Essentials Human Biology 1 Semester: Spring Year: 1997

Objectives/Competencies

Course Objective	Competencies
<p>1. Chemistry.</p> <ul style="list-style-type: none">a. Chemical bonds and the chemical basis of reactions.b. Relationship of acids and bases and the pH scale.c. Macromolecules. <p>2. Cell Biology.</p> <ul style="list-style-type: none">a. Function of cellular organelles.b. Cell division and differentiation. <p>3. Microbiology.</p> <ul style="list-style-type: none">a. Bacteria and viruses bacteria.b. Sterile technique.	<ul style="list-style-type: none">1. Identify specific chemical bonds in hair.2. Define acids and bases.3. Identify specific acids and bases in the lab including chemicals used in cosmetology.4. Identify and classify macromolecules from unknown samples. <ul style="list-style-type: none">1. Label specific cellular organelles on a cell model.2. Explain the process of mitosis and cell differentiation emphasizing outcome. <ul style="list-style-type: none">1. List and describe 3 major classes.2. Differentiate between bacteria and viruses.3. Identify specific bacterial types from class sample under microscope.4. Test and record effectiveness of several different antiseptics and antibacterials used in the salon and household.

Course Objective	Competencies
<p>4. Tissues, glands and membranes.</p> <p>5. The integumentary system.</p> <p> a. Anatomy and physiology</p> <p> b. Pathology</p>	<p>5. Present orally a specific disease state caused by a microorganism. Student must list origins, symptoms, and treatment, and determine whether that person can be seen in the salon.</p> <p>1. Identify different tissue types using prepared microscope slides.</p> <p>2. Classify and give an example of the major types of epithelial tissue.</p> <p>3. Define and categorize glands.</p> <p>4. Describe the basis of classifying connective tissue and give examples of each major type.</p> <p>5. Name the three types of muscle tissue and list their functions.</p> <p>6. State the function of nervous tissue and describe a neuron.</p> <p>1. Describe the structure of function of the epidermis, dermis and hypodermis.</p> <p>2. Explain how melanin and blood affect skin color.</p> <p>3. Describe the structure of hair and the phases of hair growth.</p> <p>4. Name the glands of the skin and describe each function.</p> <p>5. List changes the integumentary system undergoes with age.</p> <p>6. Identify and describe specific skin diseases students are likely to encounter in the salon.</p>