BUTTE COLLEGE
COURSE OUTLINE

I. **CATALOG DESCRIPTION**

BIOL 20 - Human Anatomy **4 Unit(s)**

Prerequisite(s): NONE
Recommended Prep: Reading Level IV; English Level IV; Math Level IV
Transfer Status: CSU/UC
51 hours Lecture
51 hours Lab

Structural organization of the human body: gross and microscopic structure of the integumentary, skeletal, muscular, nervous, sensory, endocrine, cardiovascular, lymphatic, respiratory, digestive, excretory, and reproductive systems, from cellular to organ system levels of organization. This course is primarily intended for nursing, allied health, kinesiology, and other health related majors. (C-ID BIOL 110B).

II. **OBJECTIVES**

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

A. Describe key structural features of different human cell and major tissue types.
B. Identify and describe the anatomy of the systems of the human body.
C. Relate structure and function at the cellular through system levels of organization of human body systems.
D. Describe structural or anatomical changes that occur in disease, injury or aging of the human body systems.

III. **COURSE CONTENT**

A. **Unit Titles/Suggested Time Schedule**

Lecture

Topics	Hours
1. Cellular structures	3.50
2. Histology	3.00
3. Embryology	1.00
4. Integumentary system	1.50
5. Skeletal system	4.50
6. Muscular system	4.50
7. Surface (External) Anatomy	1.00
8. Nervous system including special senses (sensory organs)	6.00
9. Endocrine system	1.00
10. Cardiovascular system	5.00
11. Lymphatic system	1.00
12. Respiratory system	3.00
13. Urinary system	4.00
14. Digestive system	5.00
15. Reproductive system	4.00

16. Comparison of normal versus diseased, injured or age-related structural changes in any or all of the above organ systems.	3.00
Total Hours	51.00

Lab

Topics	Hours
1. Identification of microscopic structures and tissues.	1.00
2. Identification of bones and bone features.	10.00
3. Identification of skeletal musculature and muscle features.	7.00
4. Identification of internal organs.	8.00
5. Dissection of organs or observation of dissected organs.	9.00
6. Dissection of organisms or observation of dissected organisms.	3.00
7. Identification of structures on models.	13.00
Total Hours	51.00

IV. METHODS OF INSTRUCTION

A. Lecture
B. Instructor Demonstrations
C. Reading Assignments
D. Multimedia Presentations
E. Laboratory Study: The lab emphasizes hands-on experience with anatomical models and charts, as well as preserved materials, including a dissected human cadaver.
F. Homework: Students are expected to complete a minimum of eight hours per week of outside-of-class homework activities (two hours per unit).

V. METHODS OF EVALUATION

A. Homework
B. Lecture Exams and Quizzes: These include written responses that require students to describe and explain class information.
C. Laboratory Practical Exams and Quizzes: These require accurately spelled responses recalled from memory.
D. Writing Requirement: The 1500 word writing requirement will be satisfied by the writing necessary on exams and other written assignments at the discretion of the instructor.

VI. EXAMPLES OF ASSIGNMENTS

A. Reading Assignments
    1. Read the chapter of your text (Tissues) and be prepared for an in class discussion of the following classes of tissues:
        a. Epithelial
        b. Connective
        c. Muscle
        d. Nervous
    2. Read the Clinical Note regarding Skin Disorders in Chapter 4 of your text (The Integumentary System) and be prepared for an in class discussion of the effects of prolonged exposure to sunlight.
B. Writing Assignments
    1. Write 2-3 paragraphs detailing the structure and function of the nephron during an in class assessment.

2. Write 2-3 paragraphs detailing the abundance, characteristics and functions of the different classes of leukocytes during an in class assessment.

C. Out-of-Class Assignments

1. Take home a diagram of the heart, label each structure, and then provide a brief description of the labeled structures.
2. Take home a diagram of the cranial nerves, label each nerve, and then provide a brief function of each nerve.

VII. RECOMMENDED MATERIALS OF INSTRUCTION

Textbooks:

A. Martini, Timmons and Tallitsch. Human Anatomy. 8th Edition. Pearson Benjamin-Cummings, 2014.

B. Fugle, G. and K. White. Human Anatomy Laboratory Guide. Butte College Publishing, 2008.

Materials Other Than Textbooks:

A. "Biology 20 - Resources for Lab Study." An online Butte College website containing various tutorial projects for review of laboratory materials. The site is available to all students enrolled in Biology 20 at Butte College:

B. Human anatomical models and charts, preserved human cadaver and organ specimens and fetal pigs for students dissection.

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