Douglas College

EFFECTIVE: SEPTEMBER 2003
CURRICULUM GUIDELINES

A. Division: **Science and Technology**
B. Department / Program Area **Biology**

Date: **May 2002**
New Course [ ] Revision [X]

If Revision, Section(s) Revised: **A, B, F, G, K, M, N, O, P, Q, and R.**
Date Last Revised: **August, 1991**

C: Biology 103 **D: Human Biology I** **E: 3**

Subject & Course No.

3. The organization of the human body beyond the cellular level:

   - The structure and function of the four tissue types.
   - The major body systems, their major organs, and the general function of each organ.
   - Directional terms as they relate to the human body.
   - The body cavities and their organs.

4. The integumentary system:

   - The identification and description of the components of the epidermis and the dermis.
   - Specialized cells, structures, and glands.

5. The skeletal system:

   - The basic structure, histology, and components of the human skeleton.
   - The structure, physiology, and function of bone.
   - The changes in skeletal structure during growth and development (ossification).
   - Articulations (joints) with respect to their structures and types of movement allowed.
   - The basic mechanical principles of movement as they relate to joints (biomechanics).

6. The muscular system:

   - The types of movements found in humans as a result of skeletal muscle contraction.
   - The identification of the principal muscles and muscle groups and their movements.

7. The circulatory system:

   - A description of the human circulatory and lymphatic systems.
   - The composition and properties of blood.
   - The types and characteristics of white blood cells.
   - The ABO blood groups and the Rh factor.
   - The tissues related to the heart.
   - The heart conduction system.
   - Major arteries and veins.
   - Blood pressure and pulse.
   - Major blood reservoirs in the body.
   - The mechanism of blood clotting.

8. Resistance and Immunity:

   - Nonspecific versus specific resistance.
   - The nature and roles of cellular and humoral immunity.

9. The respiratory system:

   - The major components of the human respiratory system and their functions.
   - The mechanism and types of ventilation.
   - How oxygen and carbon dioxide are transported in the blood.
   - The nervous control of breathing.

10. The digestive system:

    - The anatomy and physiology of the digestive system.
    - The structure and function of carbohydrates, lipids, proteins, and nucleic acids.
    - The digestion and absorption of carbohydrates, lipids, and proteins.
    - The control of the secretion of digestive juices.

O: Methods of Instruction

This course involves three hours per week of classroom instruction and two hours per week of laboratory activity. Classroom work will consist of two hours of lectures per week and one hour of group work (with instructor assistance) per week.

P: Textbooks and Materials to be Purchased by Students

Tortora and Grabowski. ***Principles of Anatomy and Physiology***. New York: John Wiley and Sons, Inc.

Douglas College produced manual: **Biology 103: Human Biology I**.

Q: Means of Assessment

R: Prior Learning Assessment and Recognition: specify whether course is open for PLAR

There is no provision for PLAR, other than that normally done by examining transcripts and comparing course outlines of human biology courses taken within the last five years elsewhere to the Douglas College Biology 103 course content.

Course Designer(s)	Education Council / Curriculum Committee Representative
Dean / Director	Registrar