



### **Course Description**

#### **BSC1084 | Functional Human Anatomy | 3.00 credits**

Basic human anatomy for the students in allied health and mortuary science programs. Includes the dynamics of gross and functional anatomy, terminology, body orientation, and systematic relationships.

### **Course Competencies**

**Competency 1:** The student will define how the human body is organized by:

1. Identifying significant regions of the body utilizing appropriate anatomical terminology.
2. Defining the anatomical planes used to locate parts of the body.
3. Describing the locations of the central body cavities and list the major organs in each cavity.
4. Ordering the organization of the human body as it relates to cells, tissues, organs, and organ systems.

**Competency 2:** The student will be able to recognize the various skin components of the integumentary system by:

1. Identifying the location and functions of various skin tissues.
2. Locating selected skin tissues and structures from diagrams, models, and charts.
3. Identifying the structures of the epidermal and dermal layers of the skin.

**Competency 3:** The student will be able to recognize the bones and the joints of the body by:

1. Stating the functions of the skeletal system.
2. Identifying the bones of the axial and appendicular skeleton.
3. Locating the major anatomical structures of a long bone.
4. Comparing and contrasting the structures of the fetal and adult skulls.
5. Identifying selective bone markings.
6. Defining the subdivisions of the vertebral column.
7. Identify parts of an individual vertebra.
8. Identifying the bones of the thoracic cage.
9. Stating the location and functions of the general structures of joints.
10. Differentiating the types of movably joints

**Competency 4:** The student will be able to recognize the skeletal muscles of the body by:

1. Identifying the specified muscles of the head and neck.
2. Identifying the specified muscles of the trunk.
3. Identifying the specified muscles of the leg and thigh.
4. Identifying the specified muscles of the arm and forearm.
5. Stating the origin and insertion of specific muscles.

**Competency 5:** The student will be able to identify the parts of the digestive system and describe its functions by:

1. Identifying the gross and microscopic structures of the major organs of digestion.
2. Identifying the major organs of the alimentary canal and accessory organs of digestion from charts, models, and/or diagrams.
3. Explaining the structure and functions of the accessory organs of digestion.

**Competency 6:** The student will be able to identify the parts of the urinary system and describe its functions by:

1. Locating the gross anatomical features of the urinary system.
2. Describing the structure and function of the urinary system.
3. Identifying the various components of a nephron on charts and anatomical models.
4. Identifying renal tubules and renal corpuscles on microscopic sections of the kidney tissue and urinary bladder.

**Competency 7:** The student will be able to identify the parts of the reproductive system and describe its functions

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by:

1. Locating the major structures of the male and female reproductive system.
2. Tracing the path of gametes from their points of origin to the exterior.
3. Describing the structure and function of major components of the male and female reproductive systems.
4. Identifying the structures involved in producing gametes and sex hormones in the ovaries and testes.
5. Stating the roles of the placenta and umbilical cord.
6. Comparing the roles of the placenta and umbilical cord.
7. Stating the roles of the placenta and umbilical cord.
8. Comparing the roles of the placenta and umbilical cord.

**Competency 8:** The student will be able to identify the gross and microscopic structures of the respiratory system and describe its functions by:

1. Locating the significant organs of the respiratory system.
2. Describing the structure and function of the major organs of the respiratory system.
3. Tracing the air pathway from the external environment into the smallest lobules of the lungs.
4. Identifying the alveoli, bronchioles, and bronchi

**Competency 9:** The student will be able to describe the characteristics and functions of the components of the blood by:

1. Explaining the functions of the blood.
2. Explaining the composition and functions of plasma.
3. Naming the various cellular components of the blood.
4. Stating the functions of the formed elements of the blood.
5. Describing the process of clotting.

**Competency 10:** The student will be able to demonstrate an understanding of the gross and microscopic anatomical features of the circulatory system, as well as the regulation and physiology of the heart and blood pressure by:

1. Identifying the gross anatomical structures of the heart.
2. Stating the location and function of the gross anatomical structures of the heart.
3. Differentiating arteries, capillaries, and veins under a microscope.
4. Explaining the function of arteries, capillaries, and veins.
5. Locating the major arteries of the systemic, hepatic portal, pulmonary, and models and charts.
6. Identifying structures unique to fetal circulation.
7. Comparing and contrasting adult and fetal circulatory structures and function.
8. Tracing a drop of blood from the heart to the right and left upper extremities and back to the heart.
9. Tracking a drop of blood from the heart to the lower extremities and back to the heart.
10. Tracing a drop of blood from the heart to the right and left sides of the head and back to the heart.

**Competency 11:** The student will be able to identify the nervous system by:

1. Defining the central nervous system.
2. Identifying the major parts of the brain.
3. Describing the major parts of the brain.
4. Describing the spinal cord and its function.
5. Defining the major parts of the peripheral nervous system.

**Competency 12:** The student will be able to describe the parts of the endocrine system by:

1. Explaining the relationship between the hypothalamus and the pituitary.
2. Describing the hormones of the major endocrine glands.
3. Explaining the function of the hormones of the major endocrine glands.

**Competency 13:** The student will be able to correlate the relationship between anatomy and mortuary science by:

1. Explaining how anatomy relates to microbiology, pathology, embalming, restorative art, and embalming.
2. Identifying the causes of death on a death certificate and explaining how the cause of death relates to

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anatomy.

3. Discussing the importance of anatomy as it relates to healthy living.

**Competency 14:** The student will be able to synthesize their knowledge of anatomy by:

1. Explaining how the functions of the human body relate to the living and dying process.

**Learning Outcomes:**

- Communicate effectively using listening, speaking, reading and writing skills
- Use quantitative analytical skills to evaluate and process numerical data
- Solve problems using critical and creative thinking and scientific reasoning