

Cañada College
Official Course Outline

1. **COURSE ID:** BIOL 250 **TITLE:** Human Anatomy
Semester Units/Hours: 4.0 units; a minimum of 48.0 lecture hours/semester; a minimum of 48.0 lab hours/semester
Method of Grading: Letter Grade Only
Prerequisite: BIOL 100, or BIOL 110 or BIOL 130 ; and completion or eligibility for ENGL 100 and MATH 120.

2. **COURSE DESIGNATION:**
Degree Credit
Transfer credit: CSU; UC
AA/AS Degree Requirements:
 Cañada GE Area B: SCIENTIFIC INQUIRY AND QUANTITATIVE REASONING: B2: Life Science
 Cañada GE Area B: SCIENTIFIC INQUIRY AND QUANTITATIVE REASONING: B3: Lab
CSU GE:
 CSU GE Area B: SCIENTIFIC INQUIRY AND QUANTITATIVE REASONING: B2 - Life Science
 CSU GE Area B: SCIENTIFIC INQUIRY AND QUANTITATIVE REASONING: B3 - Laboratory Activity
IGETC:
 IGETC Area 5: PHYSICAL AND BIOLOGICAL SCIENCES: B: Biological Science
 IGETC Area 5: PHYSICAL AND BIOLOGICAL SCIENCES: C: Science Laboratory

3. **COURSE DESCRIPTIONS:**
Catalog Description:
 Students learn the gross and microscopic structure of the human body organ systems through lecture and laboratory study of models and prosected human cadavers. This course is intended for students in kinesiology, nursing, radiologic technology, respiratory therapy, surgical technology, and other allied health majors. This course is an elective for pre-dental, pre-medical and pre-veterinary students.
Schedule of Classes Description
 Study of the structure of the major organ systems of the human body; lab consists of studying human gross anatomy models and prosected cadavers.

4. **STUDENT LEARNING OUTCOME(S) (SLO'S):**
 Upon successful completion of this course, a student will meet the following outcomes:
 - A. Describe the gross and microscopic anatomical features of human organ systems using images, models and human cadavers.
 - B. Describe the anatomical changes that occur in disease, injury, or aging of the human body.
 - C. Explain how the shape and composition of cells, tissues and organs determine their function.
 - D. Deconstruct anatomical terminology using knowledge of Greek and Latin roots, prefixes and suffixes.
 - E. Develop respect and appreciation for the gift of human cadavers; explain and defend their use in anatomy education.

5. **SPECIFIC INSTRUCTIONAL OBJECTIVES:**
 Upon successful completion of this course, a student will be able to:
 - A. Describe the gross and microscopic anatomical features of human organ systems using images, models and human cadavers.
 - B. Describe the anatomical changes that occur in disease, injury, or aging of the human body.
 - C. Explain how the shape and composition of cells, tissues and organs determine their function.
 - D. Deconstruct anatomical terminology using knowledge of Greek and Latin roots, prefixes and suffixes.
 - E. Develop respect and appreciation for the gift of human cadavers; explain and defend their use in anatomy education.

6. **COURSE CONTENT:**
Lecture Content:
 In this course students will study the microscopic and gross anatomical structures of the major human organ systems. Emphasis will be placed on gross anatomy, however, the embryological origins of tissues and effects of aging and pathologies may also be discussed. Particular attention will be paid to:

1. The relationship between cell and tissue structure, histology and function.
2. The structural changes that occur as a result of disease, injury, or age.
3. Surface anatomy.
4. The skeletal system and its embryological development, histology, structure of bone and arthrology.
5. The muscular system including origins, insertions and actions of superficial muscles.
6. The integumentary system.
7. The nervous system including neuronal structure, neuroglia, brain and spinal cord, cranial and spinal nerves, autonomic nervous system, and special senses.
8. The cardiovascular system including cardiac structure and cycle, blood vessels and hematopoiesis.
9. The lymphatic system.
10. The respiratory system.
11. The digestive system organs, mesenteries, and glands.
12. The urinary system including structures related to urine formation.
13. The male and female reproductive structures and their embryologic development.
14. The endocrine glands and hormones.

Lab Content:

In the laboratory students will identify the microscopic and gross anatomical structures of the major human organ systems. This hands-on work will occur primarily using human cadavers, prosected specimens and bones. Specific content includes:

1. Identification of microscopic structures and tissues.
2. Identification of bones, their landmarks and foramina.
3. Identification of skeletal musculature using human cadavers and models.
4. Identification of internal organs using human cadavers, prosected specimens, and models.

Honors Content:

In this course students will study the microscopic and gross anatomical structures of the major human organ systems. Emphasis will be placed on gross anatomy, however, the embryological origins of tissues and effects of aging and pathologies will also be discussed. Particular attention will be paid to:

1. The relationship between cell and tissue structure, histology and function. (7%)
2. The structural changes that occur as a result of disease, injury, or age. (7%)
3. Surface anatomy. (7%)
4. The skeletal system and its embryological development, histology, structure of bone and arthrology. (7%)
5. The muscular system including origins, insertions and actions of superficial muscles. (7%)
6. The integumentary system. (7%)
7. The nervous system including neuronal structure, neuroglia, brain and spinal cord, cranial and spinal nerves, autonomic nervous system, and special senses. (7%)
8. The cardiovascular system including cardiac structure and cycle, blood vessels and hematopoiesis. (7%)
9. The lymphatic system. (7%)
10. The respiratory system. (7%)
11. The digestive system organs, mesenteries, and glands. (7%)
12. The urinary system including structures related to urine formation. (7%)
13. The male and female reproductive structures and their embryologic development. (7%)
14. The endocrine glands and hormones. (7%)

Laboratory Content:

In the laboratory students will identify the microscopic and gross anatomical structures of the major human organ systems. This hands-on work will occur primarily using human cadavers, prosected specimens and bones. Specific content includes:

1. Identification of microscopic structures and tissues. (5%)
2. Identification of bones, their landmarks and foramina. (30%)
3. Identification of skeletal musculature using human cadavers and models. (25%)
4. Identification of internal organs using human cadavers, prosected specimens, and models. (40%)

7. REPRESENTATIVE METHODS OF INSTRUCTION:

Typical methods of instruction may include:

- A. Lecture
- B. Lab
- C. Activity
- D. Critique
- E. Discussion
- F. Guest Speakers
- G. Individualized Instruction

H. Observation and Demonstration

8. REPRESENTATIVE ASSIGNMENTS

Representative assignments in this course may include, but are not limited to the following:

Writing Assignments:

- Lecture exams may require short written essay answers consisting of a few to several sentences.

Reading Assignments:

- Students are expected to read approximately one chapter from the textbook each week (20-40 pages).

Other Outside Assignments:

- None

To be Arranged Assignments (if applicable):

- Not applicable

9. REPRESENTATIVE METHODS OF EVALUATION

Representative methods of evaluation may include:

- A. Exams/Tests
- B. Home Work
- C. Quizzes
- D. Research Projects
- E. Laboratory practicals

10. REPRESENTATIVE TEXT(S):

Possible textbooks include:

- A. Marieb EN, Mallatt J, and Wilhelm PB. *Human Anatomy*, ed. San Francisco, CA: Benjamin Cummings, 2014
- B. Standring, Susan. *Gray's Anatomy*, ed. United Kingdom: Elsevier, 2008
- C. Rohen, Johannes, C. Yokochi, and E. Lutjen-Drecoll. *Color Atlas of Anatomy*, ed. Philadelphia, Pennsylvania: Lippincott Williams and Wilkins, 2006
- D. Netter, Frank. *Atlas of Human Anatomy*, ed. Philadelphia, Pennsylvania: Saunders, 2010

Possible software includes:

- A. Practice Anatomy Lab (PAL). Pearson, 3 ed.

Origination Date: March 2013

Curriculum Committee Approval Date: March 2013

Effective Term: Fall 2013

Course Originator: Douglas Hirzel