

CATALOG INFORMATION

Dept and Nbr: ANAT 140      Title: FUNDAMENTALS ANAT/PHYSIO  
Full Title: Fundamentals of Anatomy and Physiology  
Last Reviewed: 2/10/2020

Units		Course Hours per Week		Nbr of Weeks	Course Hours Total	
Maximum	2.00	Lecture Scheduled	1.50	17.5	Lecture Scheduled	26.25
Minimum	2.00	Lab Scheduled	2.00	1	Lab Scheduled	35.00
		Contact DHR	0		Contact DHR	0
		Contact Total	3.50		Contact Total	61.25
		Non-contact DHR	0		Non-contact DHR	0

Total Out of Class Hours: 52.50

Total Student Learning Hours: 113.75

Title 5 Category: AA Degree Applicable  
Grading: Grade or P/NP  
Repeatability: 00 - Two Repeats if Grade was D, F, NC, or NP  
Also Listed As:  
Formerly:

**Catalog Description:**  
This course covers the fundamentals of human anatomy and physiology. The focus will be on major concepts that can provide a framework for further study in more specific courses, or serve the needs of students who wish to gain a basic understanding of how their bodies are built and function. (This course is specifically designed for students preparing for dental assisting, psychiatric technician and medical assisting programs.)

**Prerequisites/Corequisites:**

**Recommended Preparation:**  
Course Eligibility for ENGL 100 OR Course Eligibility for EMLS 100 ( or ESL 100)

**Limits on Enrollment:**

**Schedule of Classes Information:**  
Description: Course covers the fundamentals of human anatomy and physiology. For students in dental assisting, psychiatric technician and medical assisting programs. (Grade or P/NP)  
Prerequisites/Corequisites:  
Recommended: Course Eligibility for ENGL 100 OR Course Eligibility for EMLS 100 ( or ESL

100)

Limits on Enrollment:

Transfer Credit:

Repeatability: Two Repeats if Grade was D, F, NC, or NP

## **ARTICULATION, MAJOR, and CERTIFICATION INFORMATION:**

<b>AS Degree:</b>	<b>Area</b>	Effective:	Inactive:
<b>CSU GE:</b>	<b>Transfer Area</b>	Effective:	Inactive:
<b>IGETC:</b>	<b>Transfer Area</b>	Effective:	Inactive:
<b>CSU Transfer:</b>		Effective:	Inactive:
<b>UC Transfer:</b>		Effective:	Inactive:

**CID:**

**Certificate/Major Applicable:**

Certificate Applicable Course

## **COURSE CONTENT**

### **Outcomes and Objectives:**

Upon completion of this course students will be able to:

1. Explain the basic structural plan of the human body and the concept of homeostasis.
2. Name the organ systems, identify the major organs, and describe their functions.
3. Summarize the structures and functions necessary to accomplish movement of the body.
4. Compare how body-wide communication is accomplished by the nervous & endocrine systems.
5. Describe the structure and functions of the eye and ear.
6. Name the factors essential for life, and describe how they are supplied, transported and regulated inside the body.
7. Compare the various structures and processes used for defense against injury and infection.
8. Describe human reproductive structures and mechanisms.

### **Topics and Scope:**

- I. Introductory concepts
  - A. levels of biological organization
  - B. anatomical terminology
  - C. body planes, cavities
  - D. homeostasis
- II. Cells, tissues, organs
  - A. cells
    1. organelles
    2. macromolecules

- 3. cell membranes
- B. tissues
- C. organs
- D. skin
- III. Support & Movement
  - A. Skeletal system
    - 1. bones
    - 2. joints
    - 3. hemopoiesis
  - B. Muscular System
    - 1. muscles
    - 2. movement
- IV. Control Systems
  - A. Nervous system
    - 1. neurons and synapses
    - 2. CNS - central nervous system
    - 3. PNS - peripheral nervous system
    - 4. ANS - autonomic nervous system
    - 5. special senses: eye and ear
  - B. Endocrine system
    - 1. endocrine glands
    - 2. hormones
- V. Internal Environment
  - A. Circulation
    - 1. cardiovascular system
    - 2. lymphatic system
  - B. Immune system
    - 1. inflammation
    - 2. specific immune response
  - C. Respiratory system
    - 1. lungs, thoracic cavity
    - 2. regulation of respiration
  - D. Urinary System
    - 1. kidneys & nephrons
    - 2. urine formation
    - 3. regulation: water, salt, pH, blood pressure
  - E. Digestive system
    - 1. gastrointestinal tract and accessory glands
    - 2. digestion
- VI. Reproduction
  - A. male reproductive structures and functions
  - B. female reproductive structures and functions
  - C. Gestation, parturition, lactation

### **Assignment:**

- 1. Weekly reading in text, 25-30 pages per week
- 2. Study of charts, models, and specimens during lab hours
- 3. Performance of simple physiological lab exercises
- 4. Homework assignments: brief reports on lab activities, labeling diagrams, review of course material using computer based media and CDs; averaging one assignment every other week

5. Formal assessment: 3 - 8 quizzes, 2 midterm exams, including objective and short answer questions.

### Methods of Evaluation/Basis of Grade:

**Writing:** Assessment tools that demonstrate writing skills and/or require students to select, organize and explain ideas in writing.

Written homework

Writing  
20 - 40%

**Problem Solving:** Assessment tools, other than exams, that demonstrate competence in computational or non-computational problem solving skills.

None

Problem solving  
0 - 0%

**Skill Demonstrations:** All skill-based and physical demonstrations used for assessment purposes including skill performance exams.

None

Skill Demonstrations  
0 - 0%

**Exams:** All forms of formal testing, other than skill performance exams.

Multiple choice, Matching items, Completion, objective and short answer questions

Exams  
50 - 70%

**Other:** Includes any assessment tools that do not logically fit into the above categories.

Participation in Lab

Other Category  
10 - 20%

### Representative Textbooks and Materials:

ESSENTIALS OF HUMAN ANATOMY & PHYSIOLOGY, Elaine Marieb, 8th Edition, Benjamin Cummings, 2006

ESSENTIALS OF HUMAN ANATOMY & PHYSIOLOGY, F. H. Martini & E.F. Bartholomew, 3rd Edition, Prentice Hall, 2003

Instructor Prepared Materials