LOS MEDANOS COLLEGE

ARTICULATION AGREEMENT

DATE DRAFTED: April 12, 2021
VALID ACADEMIC YEAR(S): FA20-SP22

LMC COURSE: BIOSC-030 Introduction to Anatomy and Physiology

HIGH SCHOOL COURSE: Introduction to Anatomy & Physiology

School: Pittsburg High School
Address: 1750 Harbor St., Pittsburg, CA 94565

A. COLLEGE COURSE DESCRIPTION: This course is designed to cover basic anatomy and physiology. Fundamentals of body structure and function and the elegant interrelationships between body organs and how they perform will be explored. All of the systems of the body, including very basic microscopic anatomy and simple physiological chemistry will be covered in this one semester course.

B. UNITS: 4

C. PRE-REQUISITES: NA

D. REQUIRED CONTENT FOR ARTICULATION:

1. Orientation of the Human Body
   a. Overview of anatomy and physiology
   b. Levels of structural organization
   c. Homeostasis
   d. Language of anatomy
2. Basic Chemistry
   a. Concepts of matter and energy
   b. Molecules and compounds
   c. Chemical bonds and reactions
   d. Biochemistry
3. Cells and Tissues
   a. Overview of the cellular basis of life
   b. Anatomy of a Cell
   c. Cell physiology
   d. Tissues
4. Skin and Body Membranes
   a. Classification of body membranes
   b. Integumentary system
5. Skeletal System
   a. Bones
   b. Axial and Appendicular skeleton
   c. Joints
6. Muscular System
   a. Muscle tissue
   b. Muscle movements, types, and names
   c. Gross anatomy of skeletal muscles
7. Nervous System
   a. Organization of the nervous system

b. Nervous tissue
c. Central nervous system
d. Peripheral nervous system

8. Senses
   a. Eye
   b. Ear
   c. Chemical senses: taste and smell
9. Endocrine System
   a. Hormone function
   b. Major endocrine organs
10. Blood
   a. Composition and functions of blood
   b. Hemostasis
   c. Blood Groups and Transfusions
11. Cardiovascular System
   a. Anatomy of the heart
   b. Physiology of the heart
   c. Blood vessels
12. Lymphatic system and Body Defenses
   a. Lymphatic vessels
   b. Lymph nodes
   c. Lymphoid organs
   d. Nonspecific body defenses
   e. Specific body defenses: Immune System
13. Respiratory System
   a. Functional anatomy of the respiratory system
   b. Respiratory physiology
14. Digestive System and Body Metabolism
   a. Anatomy of the digestive system
   b. Functions of the digestive system
   c. Nutrition
15. Urinary System
   a. Kidneys
   b. Ureters, urinary bladder, and urethra
   c. Fluid, electrolyte, and acid-base balance
16. Reproductive System
   a. Anatomy of the male reproductive system
   b. Male reproductive functions
   c. Anatomy of the female reproductive system
   d. Female reproductive functions and cycles
   e. Mammary glands
   f. Survey of pregnancy and embryonic development
17. Developmental aspects of body systems
18. Diseases and disorders of body systems

E. REQUIRED COMPETENCIES (PERFORMANCE OBJECTIVES) FOR ARTICULATION

Course-Level Student Learning Outcomes (CSLOs): By the end of this course, the student should be able to:

1. Identify of the levels of organization of the human body from cells to tissues to organs to systems and be able to describe the major physiological processes (negative or positive feedback) that each system utilizes to promote normal function.
2. Differentiate and properly name (identify) the major cells, tissues and organs of the body and be able to describe their normal physiology and importance to normal body function.
3. Explain the mechanisms of homeostasis and how each organ system contributes to this process.

F. GRADING POLICY:

Grades are based on a point system.

A	90% - 100%
B	80% - 89%
C	70% - 79%
D	60% - 69%
F	59% and below

Assignments WILL include:

Homework	10% of grade
Labs/Research/Projects	30% of grade
Practicums	30% of grade
Assessments/Quizzes	30% of grade

G. PROCEDURES AND/OR CRITERIA FOR COURSE ARTICULATION:

a. Complete the Anatomy course at Pittsburg High School with a grade of "B" or better.
b. Receive a "B" or better on the agreed upon college/high school final exam procedure.
c. Be recommended for credit by your high school teacher.
d. Apply for admission at Los Medanos College.
e. Register for CATEMA for electronic submission of college credit **OR** obtain copy of high school transcript and articulation agreement and submit to the LMC Office of Admissions & Records **within the academic year in which credit was earned.**
f. Upon completion of the above, the student will receive on his/her LMC and CCCCD (California Community College District) transcripts the units of credit for LMC's **BIOSC-030 Introduction to Anatomy and Physiology** course.
g. College transcripts will reflect the **FINAL EXAM GRADE** earned and will be notated as *Credit by Exam.

H. TEXTBOOKS OR OTHER SUPPORTING MATERIALS

- Elaine N. Marieb, *Essentials of Human Anatomy & Physiology* 8th edition
- Science classroom equipment
- Specimens for dissection.

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COLLEGE SIGNATURES

Natalie Hannum
Natalie Hannum (Apr 12, 2021 15:48 PDT)

Natalie Hannum — Date
LMC Vice President of Instruction

Ryan Pedersen
Ryan Pedersen (Apr 12, 2021 12:56 PDT)

Ryan Pedersen — Date
LMC Dean of Math & Physical Sciences

Kyle Hanks
Kyle Hanks (Apr 12, 2021 10:00 PDT)

Kyle Hanks — Date
LMC Biology Department Chair

James Clark
James Clark (Apr 12, 2021 09:56 PDT)

James Clark — Date
Faculty, Los Medanos College

HIGH SCHOOL/ROP/DISTRICT SIGNATURES

Todd Whitmire
Todd Whitmire (Apr 12, 2021 15:50 PDT)

Todd Whitmire — Date
Principal, Pittsburg High School

Anthony Molina
Anthony Molina (Apr 24, 2021 18:03 PDT)

Anthony Molina — Date
Executive Director of Educational Services, PUSD

Birdie Forsythe
Birdie Forsythe (Apr 14, 2021 11:34 PDT)

Birdie Forsythe — Date
Faculty, Pittsburg High School

Melissa Bentley
Melissa Bentley (Apr 14, 2021 13:48 PDT)

Melissa Bentley — Date
Faculty, Pittsburg High School