

ARTICULATION AGREEMENT

DATE DRAFTED: May 17, 2018

VALID ACADEMIC YEAR(S): 2018-19

LMC COURSE: BIOS-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

This course is designed for students who have a desire to begin the exciting process of discovering how the human body works. Those interested in an introductory level course in human anatomy and physiology to prepare them for the more comprehensive BIOSC-040 and BIOSC-045 should find this class helpful. The course is also required for many LVN, Paramedic and Firefighter Programs. The laboratory will combine simple physiological experiments and demonstrations with study of anatomical models, pre-dissected human cadavers and preserved organs.

F. METHODS FOR END OF COURSE ASSESSMENT:

Grades are based on a point system.

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

G. PROCEDURES AND/OR CRITERIA FOR COURSE ARTICULATION:

1. Complete the Physiology course at Pittsburg High School with a grade of "B" or better.
2. Complete the LMC "Credit by Exam" procedure with a grade of "B" or better.
3. Apply for admission at Los Medanos College.
4. 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.
5. Upon completion of the above, the student will receive on his/her LMC and CCCC (California Community College District) transcripts the unit credit for LMC's BIOS-030 "Introduction to Anatomy and Physiology" course. Transcripts will note *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

Kevin P. Horan

Kevin P. Horan (May 29, 2018)

Kevin Horan Date
LMC Vice President of Instruction & Student Services

Ryan Pedersen

Ryan Pedersen (May 23, 2018)

Ryan Pedersen Date
LMC Interim Dean of Math & Physical Sciences

Durwynne Hsieh

Durwynne Hsieh (May 21, 2018)

Durwynne Hsieh Date
LMC Biology Department Chair

Denise M. Speer

Denise M. Speer (May 21, 2018)

Denise Speer Date
Faculty, Los Medanos College

HIGH SCHOOL/ROP/DISTRICT SIGNATURES

Todd Whitmire

Todd Whitmire (May 29, 2018)

Todd Whitmire Date
Principal, Pittsburg High School

Janet Schulze

Janet Schulze (May 29, 2018)

Janet Schulze Date
Superintendent, Pittsburg Unified School District

Charles Edward Barker

Charles Edward Barker (May 29, 2018)

Charles Barker Date
Faculty, Pittsburg High School

Cc: LMC Director of Admissions and Records
LMC K-12 Senior Program Coordinator
LMC Pathways Counselor/LMC CTE Counselor
School District Educational Services Dept.
High School Principal
High School CATEMA Contact













PHS BIOS-030 Articulation 2018-19 FINAL














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