Course Acronym:	AHSD
Course Number:	521
Descriptive Title:	High School Life Science - Physiology
Division:	Adult High School Diploma
Department:	Adult High School Diploma
Course Disciplines:	Adult High School Diploma
Catalog Description:	This noncredit high school level course provides students with an introduction to the study of physiology and genetics, with a focus on human systems. Structure and function of basic human organ systems are the focus, supplemented with contrasts to simple organisms, plant physiology, and basic genetics. Successful completion of this course contributes to progress toward a high school diploma or equivalent. From 1-10 high school credits can be earned in 15-hour modules. Note: This course is open entry/open exit.
Prerequisite:	
Co-requisite:	
Recommended Preparation:	
Enrollment Limitation:	
Hours Lecture (per week):	.83 to 8.33
Hours Laboratory (per week):	0
Outside Study Hours:	1.66 to 16.66
Total Course Hours:	15 to 150
Course Units:	0
Grading Method:	Pass/No Pass/SP
Credit Status:	Noncredit
Transfer CSU:	No
Effective Date:	
Transfer UC:	No
Effective Date:	
General Education: ECC	
Term:	
Other:	
CSU GE:	
Term:	
Other:	
IGETC:	

Term:	
Other:	
Cal-GETC:	
Term:	
Other:	
Student Learning Outcomes:	Upon completion of this course, students will be able to: 1. analyze the interrelationship between structure and function of organs, and the resultant organ systems, of the human body, and vascular plants; and compare these to corresponding structures in lower organisms. 2. explain the sequence of organs in organ systems as they relate to the function of the systems. 3. compare how the organ systems of the human body relate to each other structurally and functionally.
Course Objectives:	1. Breakdown in a chart the function(s) of each organ studied. 2. List the structure of each feature of the organ studied with regard to the function of the organ. 3. Describe how representative lower organisms accomplish life functions, which are accomplished by organ systems in humans. 4. Use resources to determine the function(s) of each organ system studied. 5. Outline the order of the organs in the system with their corresponding functions. 6. Using a diagram, relate the order of the organs to the order of the system's function(s). 7. Discuss areas of crossover between organ systems. 8. List the functions of the two organ systems being analyzed.
Major Topics:	Note that this is high school level content: **I. Plant Physiology (lecture)** A. Roots, stems, and leaves **II. Nutrition (lecture)** A. Nutrients, Vitamins and Minerals B. Calories, diet, and food group **III. Digestive System (lecture)**

A. Simple organisms

B. Organs of the digestive system

C. Teeth and mechanical digestion

D. Chemical digestion

E. Care of the digestive system

IV. Circulatory System (lecture)

A. Heart and blood vessels

B. Lymph

C. Blood and blood types

D. Care of the circulatory system

V. Respiratory system (lecture)

A. Organs of the respiratory system

B. External/Internal/Cellular respiration

C. Care of the respiratory system

VI. Excretory System (lecture)

A. Organs of the excretory system

B. Perspiration and skin structure

C. Care of the excretory system

VII. Musculoskeletal system and muscle/bone interaction (lecture)

A. Skeleton, joints, tissues, and movement

B. Care of the musculoskeletal system

VIII. Nervous System (lecture)

A. Stimuli and response

B. Nerve cells

C. Signal transmission

D. Central/Peripheral nervous system

E. Care of the nervous system

IX. Behavior (lecture)

A. Behavior types

B. Methods of learning

C. Effects of drug abuse

X. Sensory Organs (lecture)

A. Eyes, ears, skin, nose, tongue

B. Care of sense organs

XI. Endocrine system (lecture)

A. Plant hormones and tropisms

B. Gland and hormones

XII. Immune system (lecture)

A. Infectious disease and pathogens

B. Immune system/body defenses

C. Noninfectious disease

XIII. Sexual Reproduction (lecture)

A. Sexual reproduction in plants

B. Sexual reproduction in animals

XIV. Genetics (lecture)

A. Chromosomes/Genes/Alleles

B. Gametes and fertilization

C. Punnett squares

D. Dominance relationships

	E. Sex linked traits **XV. Evolution (lecture)** A. Twins B. Mutations C. Natural and artificial selection
Total Lecture Hours:	15 to 150
Total Laboratory Hours:	0
Total Hours:	15 to 150
A.1. Primary Methods of Evaluation (Part 1 - CCN courses only):	
A.2. Primary Method of Evaluation (Part 2 - all courses; choose one):	2) Problem solving demonstrations (computational or non-computational)
Typical Assignment Using Primary Method of Evaluation:	Eat one meal that complies with the USDA guidelines. For each organ in the alimentary canal, write a paragraph describing what processes are occurring to your meal. Since we will be anonymously peer reviewing these papers with rubrics, please put your name only on the cover sheet.
Critical Thinking Assignment 1:	Create a model for chromosomal inheritance during meiosis. Then, use your model to predict phenotypes of progeny for the attached list of 10 mating pairs. After making predictions for the list, write a paragraph summary justifying your predictions.
Critical Thinking Assignment 2:	**Hydration Journal Assignment** Part One: For the next two weeks, you will be keep a hydration journal. Include a minimum of three days in each week where you record all significant sources of water that you drink. Include water, noncaffeinated/noncarbonated beverages, and clear broth soups. If you have questions on including a water source, write it in the margin of your journal. Since you will be graded on the presence of entries and not quality, be honest. Part Two: Write a one paragraph reflection on your hydration awareness experience. Include anything you learned about your hydration habits, and the importance of hydration to you personally.
Other Evaluation Methods:	Completion, Homework Problems, Matching Items, Multiple Choice, Objective Exam, Quizzes
Instructional Methods:	Demonstration, Discussion, Group Activities, Lecture, Multimedia presentations
If other:	
Work Outside of Class:	Answer questions, Problem solving activity, Required reading, Study, Written work (such as essay/composition/report/analysis/research)
If Other:	
Up-To-Date Representative Texts:	Patton, K. and Gary Thibodeau. *Anthony's Textbook of Anatomy and Physiology*, 21st Edition. Elsevier, 2018. (Discipline Standard)
Alternative Texts:	

Required Supplementary Readings:	
Other Required Materials:	
Requisite:	
Category:	
Requisite course(s): List both prerequisites and corequisites in this box.	
Requisite and Matching skill(s):Bold the requisite skill. List the corresponding course objective under each skill(s).	
Requisite Skill:	
Requisite Skill and Matching Skill(s): Bold the requisite skill(s). If applicable	
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Requisite Skill and Matching skill(s): Bold the requisite skill. List the corresponding course objective under each skill(s). If applicable	
Enrollment Limitations and Category:	
Enrollment Limitations Impact:	
Course Created by:	Matthew Kline
Date:	03/18/2024
Original Board Approval Date:	01/13/2025
Last Reviewed and/or Revised by:	Matt Kline
Date:	03/12/2026

Last Board Approval Date:	05/20/2026
Effective Term:	FA 2026