Danville Area School District
Course Overview and Scope and Sequence

Course Title: Anatomy and Physiology
Content Area: Science
Grade Level: 11th and/or 12th
Date Developed: June 2023

COURSE OVERVIEW: This semester course examines human anatomy by exploring select body systems, tissues and anatomical directions and planes. This will be accomplished through lecture, audio-visual aids, demonstrations, and extensive laboratory activity, including, but not limited to, the dissection of fetal pigs and other mammals. Prerequisite: Successful completion of Keystone Biology or Honors Keystone Biology
ANCHOR STANDARDS: PA Biology standards 3.19-12B - Develop and use a model to illustrate the hierarchical organization of interacting systems that provide specific functions within multicellular organisms.
KEY COURSE TEXT AND MATERIALS: **Human Anatomy and Physiology** Eleventh Ed. *Elaine N. Marieb/Katja Hoehn-Pearson* ISBN: 9780124580999
KEY ASSESSMENTS: Diagnostic: Surveys Formative: Labs, Case Studies, Gizmos, Online/Class reviews Summative: Tests, Lab practicals and Quizzes

SCOPE AND SEQUENCE					
Unit	PRIORITY STANDARDS	SUPPORTING STANDARDS	ASSESSMENT	MATERIALS	TIMEFRAME
Unit: 1 Introduction to anatomical concepts, terms and directions	Biology 3.19-12B		Body systems poster activity, Intro to dissection lab, Directional terms and systems quiz, test.	Google classroom, teacher created labs and materials, online platform: Biodigital.	10 class periods
Unit: 2 Cells and cell junctions	Biology 3.19-12B	Biology 3.19-19C 3.19-12J 3.19-19Q	Body cell research and poster project. Junctions 3D project, cells quiz.	Cells alive, gizmos, Google classroom, teacher created labs and materials, online platform: Biodigital.	6 class periods
Unit: 3 Tissues	Biology 3.19-12B	Biology 3.19-19C	Microscope tissues identification lab, Individual and class tissue concept maps. Tissues test and lab practical.	Google classroom, teacher created labs and materials, online platform: Biodigital.	12 class periods
Unit 4: Skeletal system	Biology 3.19-12B		Clay bone project, bone disorder research paper, Skull and vertebrae drag/drop tutorial, skeleton 3D labeling. Skeletal test.	Google classroom, teacher created labs and materials, online platform: Biodigital.	12 class periods
Unit 5: Muscular	Biology 3.19-12B	Biology 3.19-19C	Sarcomere unit 3D	Google classroom,	12 Class periods

system and introduction to dissection/external anatomy			model with pipecleaners, Muscle id lab, online tutorial of muscle action, test and quiz.	teacher created labs and materials, online platform: Biodigital.	
Unit 6: Digestive system	Biology 3.19-12B	Biology 3.19-19G 3.19-19J	Digestive case studies, Gizmo, paper alimentary tract activity, dissection, Test.	Google classroom, teacher created labs and materials, online platform: Biodigital.	12 Class periods
Unit 7: Circulatory/respiratory system	Biology 3.19-12B	Biology 3.19-19C	Blood pressure lab, heart dissection, blood vessel identification, Test.	Google classroom, teacher created labs and materials, online platform: Biodigital.	12 Class periods
Unit 8: Urogenital system (Excretory and reproductive systems)	Biology 3.19-12B	Biology 3.19-19C	Urology case study/diagnosis, nephron drawing and labeleing, reproductive system identification, hormone chart analysis. Final exam.	Google classroom, teacher created labs and materials, online platform: Biodigital.	12 Class periods