

Related Occupations

Medical Laboratory Aide
Medical Laboratory Technician
Medical Records Clerk
Health Educator
Health Services Administrator
Hospital/Nursing Home Administrator
Certified Nurse's Assistant
EMT
Medical Assistant
Physical Therapy Aide
Respiratory Therapy Aide
Dental Hygienist
Registered Nurse
Pharmacy Technician
Dentist
Physical Therapist



Valencia High School

Health Science Career Path

Career Path Advisor:
Mr. Davis

Email: adavis@hartdistrict.org



Valencia High School

27801 Dickason Drive
Valencia, California 91355

Phone: 661-294-1188
Website: valenciavikings.com

California Industry Sector:
Health Science and Medical Technology

Valencia High School Health Science Career Path



California Pathway:
Diagnostic Services, Health
Informatics and Therapeutic Services

Chemistry A/B

Chemistry is a rigorous lab based course in the physical sciences. The class is appropriate for students who have made a definite commitment to attend a university, as the material is difficult and the work demanding. A major goal of the course is to help the student develop a sound method of problem solving through the basic activities of science. The course explores atomic theory, the nature and phases of matter, chemical periodicity, the mole concept, models of atoms, energy, rate and equilibrium characteristics of chemical reactions, acid-base behavior, oxidation reduction, and chemical bonding in gases, liquids, and solids, organic and biochemistry.

Microbiology

Microbiology is a one-semester elective laboratory course offered in the fall semester for high ability students. This is a college level course using college textbooks. It is designed to meet the needs of students who may be thinking about careers in the biomedical fields and is part of our 63 Medical and Fitness Foundations Career Paths. Most students will also want to take a complementary course in molecular genetics that follows this course in the spring semester. The course reviews the study of bacteria and how it affects every part of our lives; morphology of bacteria; growth cycles; spores; cysts; aerobic and anaerobic bacteria; seventeen labs dealing with morphology, gram stain, negative staining, starch hydrolysis, gelatin liquefaction, carbohydrate utilization, killing effects of ultra violet radiation; consumer bacteria, foods and dairy; bacteria and disease; disinfections and sterilization; experiments with Millipore technique for filtration and culturing bacteria; identification of water contamination by coliform indicators. Extensive use of the research microscope will be employed and a general understanding of microscopy will be applied to the students' laboratory skills. Microbiology Honors also includes a two-week

Health Science Career Path

Required Classes

- Chemistry A/B
- Honors Microbiology
- Honors Molecular Genetics
- Honors Human Anatomy and Physiology A/B
- Career Exploration Project
(Must be in Career Industry Sector)

Optional Classes (One or more)

- Sports Medicine
- Physics
- AP Biology
- AP Environmental Science
- AP Psychology
- CPR/First Aid
- ROP – Medical office
- ROP – Dental assistant
- ROP – Physical Therapy
- ROP – Pre Emergency Medical Technician
- ROP – Forensics
- ROP – Pharmacy Assistant
- ROP – Health Care Occupations
- ROP – Animal Care and Service

laboratory research project at the end of the course that involves the identification of two unknown bacteria. Students will apply all that they have learned in the laboratory to a practical, performance based research project.

Human Anatomy and Physiology A/B

Human Anatomy and Physiology is a two-semester course that will cover the basic structure and functions of the human body. The student will understand the organization of the body by studying the structure and function of cells, tissues, organs and organ systems. The student will also become familiar with the skeletal, muscular, integumentary, circulatory, respiratory, digestive, excretory, nervous, immune, endocrine and reproductive systems. This course is well suited for the student who has an interest in pursuing a career in the health related fields. There will be numerous hands on activities, labs, experiments and dissections. Also, diseases, medical tests, and health care career information will be included in the curriculum.

