

Piner High School's Health and Science Investigations Pathway

Three years of great science experiments, career exploration, field trips, and internships.

HSI Faculty

Year I

Investigations in Science

Mr. Mark Mantoani



Year II

Sports Medicine, Anatomy & Physiology, & Nutrition

Mr. Dante De Paola

Year III

Advanced Investigations & Career Placements

Ms. Judy Barcelon



Year I Highlights

- **Investigations**
DNA studies/Crime Solving
Gel electrophoresis/DNA fingerprinting,
PCR, transgenic organisms

Microbiology
Viruses/HIV, growing & identifying
bacteria, antibiotics & vaccines, making
yogurt!

Human Health
Vital signs, disease identification &
simulation, blood studies, urinalysis&
medical imaging

Environmental Science
Studying local creeks/bioassessment, field
studies projects, habitat assessment,
Invasive/native species, background in
ecology

- **Field Trips**
Sonoma State Genetics Lab
Memorial Hospital Tour

Year II Highlights

- **Investigations**
Sports medicine techniques
Anatomy & Physiology
Pig dissection
Nutrition: meal plan/diet

Year III Highlights

- **Lab Investigations**
ELISA /pregnancy testing
Urinary tract infections
Viral outbreaks
Histology prep
- **Field Trips**
Public Health Lab
Nursing career seminar
Department of Justice

**What
do you
want
to
learn ?**



Program Highlights

Health Center 21 Computer Lab

Each class will use this state of the art
online learning center to stimulate
student thinking and prepare students
for careers in health science.
Students love the independent
learning provided by this college level
program.

SRJC Articulation Agreement

For each year of our program,
students will create their own
medical terminology binder that will
prepare them for the end of course
exam which could earn them three
college credits in Medical Terminology
(HLC 160).

Community Career Placements

Third year students spend two to four
hours per week on site in a career
placement of their choice. Students
relate their experiences and
participate in a weekly senior
seminar, then prepare a final
PowerPoint



Biotechnology Transformation New Name – Same Great Foundation

New, Improved, Expanded...

These are just some of words used to describe the changes happening in the Biotechnology Pathway.

Shifting the focus to health and science careers will give our students a better understanding of the breadth and depth of opportunities in the health care industry. We have lined up great community support in the form of speakers and internships geared towards various careers in health sciences and medical technology. Our new name, Health & Science Investigations Pathway, describes the shift in our curriculum to **focus more on the human body and disease, as well as nutrition and sports medicine.**

With this shift comes the **opportunity to apply for grant money for teacher training, student activities and facility remodeling.** We have plans to **create a nursing lab complete with bedside monitors and mechanical patients for students to diagnose and treat.** We have already received donations from hospitals, the latest being a microtome from John Muir in Concord, which we will use to make histology specimens to study the different tissues of the body.

Our program has most recently **been acknowledged by SRJC as adequate preparation for Medical Terminology and after three years our students will have an option to test out of this class and receive three units of credit for HLC 160.** This year we also hope to start a Health Occupation Students of America Club which promotes health in our community and allows students to attend and participate in local conferences.

Lots of great changes mean lots of fantastic opportunities for those already in the pathway and those that choose to join!!

Contact Mark Mantoani at PHS for more information
mmantoani@srcs.k12.ca.us or 707-528-5245



Student Job-Shadowing Placements

Sutter Hospital Neonatal Unit, ER, Ultrasound, Physical Therapy	Kaiser Hospital Pediatrics, Registered Dietician
Safari West	Dr. David Marcus - Plastic Surgery
Memorial Hospital ICU, Cath Lab, Urgent Care Unit	SRJC - Sports Medicine
Bennett Valley Fire Department	Dr. Abdul Harris - General Surgeon