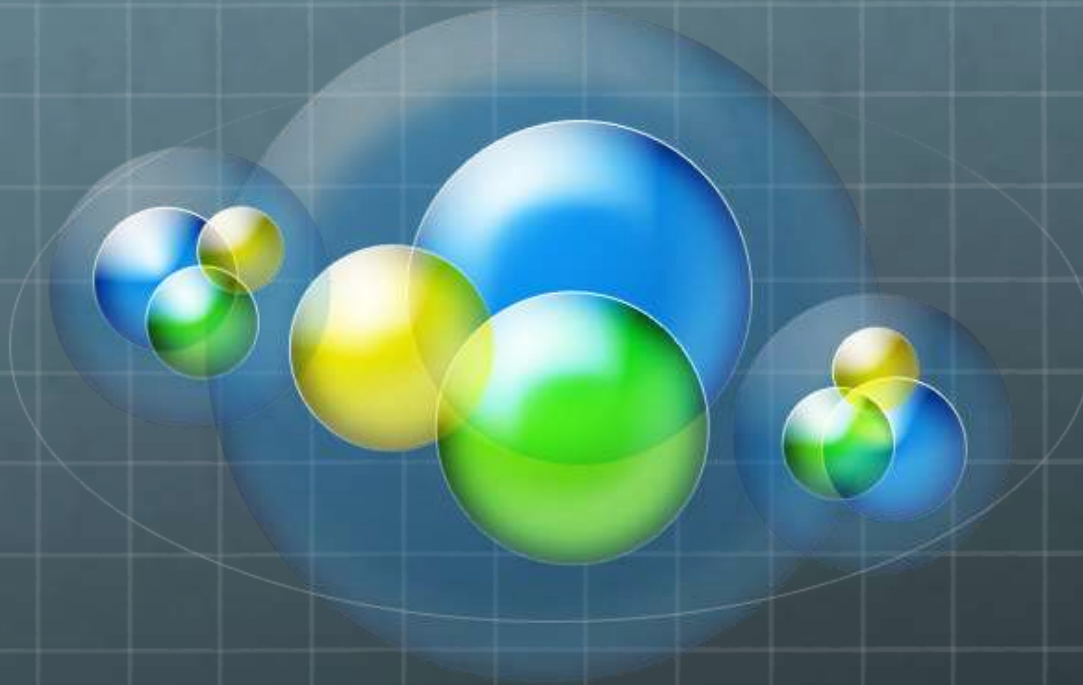


Welcome!



MVHS Science Course Selection January 2021

Requirements

FUHSD Graduation

2 years D or better

1 Life Science + 1 Physical Science
needed

Life Science

- Biology
- AP Biology, Physiology, and AP Environmental Science

Physical Science

- Chemistry or Chemistry Honors
- Physics or AP Physics 1
- AP Environmental Science

UC/CSU/ 4 year university

- C or better
- 3 years recommended
- UCs and other more selective schools, 3-4 years highly recommended

Recommended Class Sequence

Freshmen

Sophomores

Juniors/Seniors

Biology



Chemistry
or
Chemistry
Honors,

Or

Physics or
AP Physics 1



1. Physics
2. Chemistry/Chem Honors
3. Physics AP1 → AP C
4. Physiology
5. AP Biology
6. AP Chemistry
7. AP Environmental Science

Non- departmental Class: The engineering pathway (11-12 grade) class can be taken concurrently

Choosing your next science class

Consider:

- Graduation and college requirements
- Current teacher's input should be strongly considered
- Consider your goals and interests
- Follow your passion
- Other commitments: Think of your entire schedule and extracurricular activities, while choosing the classes








First Year Chemistry- Chemistry and Chemistry Honors

Similarities between Chem and Chem Honors

- Chemistry is the central science with applications in biological and physical sciences.
- Chemistry can help you better understand the world around you.
- Weekly hands on labs
- Demonstrations that illustrate interesting chemistry

Differences between Chem and Chem Honors

-  Pace
-  time commitment
-  More self-reliance
-  Comfort with mathematical computations is necessary
-  Chemistry is a good option for students looking for additional support or students who do not have time in their schedule to support the work load.

Physics or AP Physics 1?

Physics

- Passing grade in previous MV science and math course
- Inquiry-based, collaborative course with real world applications of physics.

AP 1

- B or better in previous MV science course
- More math intensive: B or better in Algebra2/Trig and concurrent enrollment in Pre calculus/higher
- Fast paced course; requires independent work
- Other notes:
 - Good preparation for SAT 2-Physics
 - Required for AP Physics C

11/12 grade: Physiology



- Holistic study of human physiology
- Focus on common health issues
 - Stress
 - Obesity and Diabetes
 - Patients' Rights
 - Performance Enhancement
 - Cardiovascular disease
 - Cancer
- Emphasis on personal health
- CPR certification

Recommended prerequisites:

- C or better in Biology AND passing grade in either Chemistry course

Other notes:

- Good preparation for anyone considering a career in medicine or other health fields

Want to take an AP Class?

- MVHS offers AP Biology, AP Chemistry, AP Physics (2 levels), and AP Environmental Science
- Offered to 11th and 12th grade students.
- **AP courses are college level courses. Requires independent reading, analysis, and study beyond classroom instruction.**
- Take national College Board exam in May; 0 to 5 range, scores 3-5 typically get college course credit

AP Biology

- Problem-solving based
- Emphasis on Molecular Biology (Semester 1), Plants, Animals & Body Systems (Semester 2)
- Biweekly labs. Biotechnology-based labs. Ex: students have opportunity to explore their own DNA
- Includes opportunity for independent engagement- Product Development Project



Recommended prerequisites:

- B or better in Biology AND B or better in either Chemistry course

Other notes:

- Good preparation for SAT 2- Biology and AP Biology exam

AP Chemistry



- First year college level General Chemistry course. Emphasis on problem-solving, critical-thinking and technical writing- online learning- website, podcasts, facebook group
- We work hard and play harder
- Weekly labs
 - 95-97% pass rate (3,4,5) on AP test

Recommended prerequisites:

- Time in their schedule 1-1.5 hours/weekday
- Desire to learn the material
- AP Chemistry is the second year chemistry course
- Other notes:
 - Good preparation for SAT 2-Chemistry and AP exam

AP Environmental Science

- Interdisciplinary course
- the relationship between humans and the natural world
- Ecology, biodiversity, population, natural cycles
- Water, air, soil, food quality and pollution
- Energy, global climate change
- Case studies and current events emphasis



- Labs, projects
- Recommended prerequisites:
 - C or better in Biology and any chem or physics course
- Other notes:
 - Engagement with public officials and community and business leaders
 - 85-90% pass rate on AP exam

AP Physics C

- Introductory Calculus, Kinematics, Dynamics, Electricity & Magnetism
- Problem-solving and interactive discussions
- Weekly quizzes and exams
- Other notes:
- On the AP (Level C) exam, 90% of students receive a 5 on the exam

Recommended prerequisites:

- Completed AP Physics 1 and Calculus AB or BC

Thank you!

**For more information, contact
Michael Lordan - department lead
michael_lordan@fuhisd.org**