



Ventura High School

2 North Catalina St. Ventura, CA 93001 ~ 805.641.5116



Mr. Jaquette ([short bio](#))

Science Teacher

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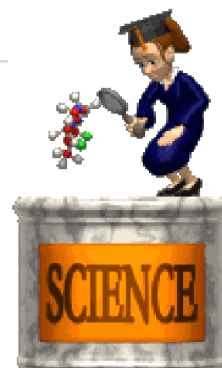
WELCOME Students & Parents/Guardians! Please follow this [LINK](#) to understand how assignments are assigned, assessed, and then graded for ALL of my classes and students. Access Q for current and most up-to-date marks.

Trouble accessing Q? Visit <https://www.venturausd.org/> to find links to Parent and Student "Q-connect". You may be required to obtain a password to access this resource, so please contact VHS administration to obtain one.

I utilize Canvas ([Canvas online learning platform](#)) to provide all of my class assignments and expectations in digital format. I do not use Canvas as a grading platform. Please refer to Q for your most up-to-date grade.

Current and Projected Courses. Click on hyperlinks to access individual class pages. (last updated September 2022)

Earth & Space Science	<i>Period 7</i>
Integrated Physics and Chemistry (IPC)	<i>Period 2 and 3</i>
Honors Integrated Physics and Chemistry (HIPC)	<i>Not offered 2024/2025</i>





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[AP Physics 1](#)

Period 4

[Physics in the Universe](#)

Period 5

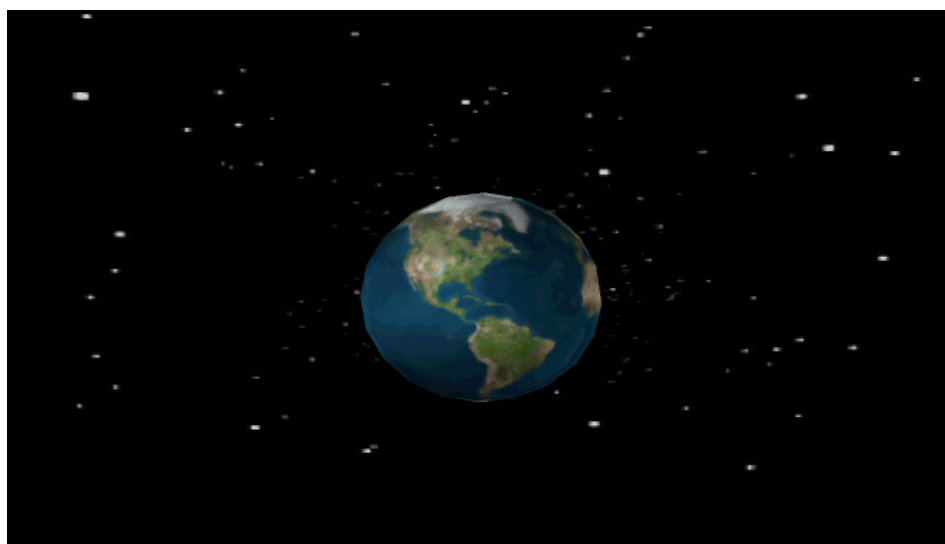
Daily availability for help

Tuesday,
Wednesday,
and Thursdays

I am in my classroom to offer help to students in all of my classes during “study hall” every Tuesday, Wednesday, and Thursdays between 3:30pm-4:30pm. Depending on the demand and day, I may be able to extend this assistance until 5pm.

Monday-Friday

I am available for questions on campus during contract hours, 8:15am-3:30pm. I can also be reached via email (see email address with contact information on page above). Please make an appointment for questions/concerns that you predict may last more than 15 minutes.





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8 Reasons Why Every College-Bound Student Should Take Physics

The significant advantage of taking high school Physics is one of the best-kept secrets in American education. Many students lack the confidence to attempt Physics unless encouraged to do so by their parents or peers. All too often, this encouragement does not happen. Those students fortunate enough to attend a high school with a strong Physics program should make every effort to take advantage of it. Check out these facts!

1. Modern technology is physics-based.

Any technology using electricity, magnetism, mechanics, heat, light, sound, optics, etc. comes from physics. Even though the knowledge required to discover fertilizers, drugs, plastics, and chemicals came from chemistry and, in some cases, biology, the manufacture of these items is dominated by physics-based technology.

2. All branches of science contain principles obtained from physics.

Like technology, it is difficult to find a branch of science that does not contain physics-related aspects such as electricity, magnetism, mechanics, heat, light, sound, optics, etc. Chemistry, in particular, becomes indistinguishable from physics when delving into the atomic model. Physics is the most basic science and, in many cases, it is required in order to understand concepts in other sciences.

3. Physics classes polish the skills needed to do well on SAT tests.

Physics classes provide practice in algebra and geometry, the math topics most likely to occur on SAT tests. Physics, however, is not solely a math class. To understand the concepts of physics students must use analogies. To work physics problems, students must read and comprehend paragraphs packed with both useful



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and superfluous information. Physics, therefore, develops both math and verbal skills.

4. College recruiters recognize the value of physics classes.

College recruiters tend to be favorably impressed by transcripts containing challenging classes like physics. They know that it is easy to attain a high GPA by taking a light course load. Success in high school physics is considered a sign of academic maturity and ability. Some technically-oriented programs deny entrance to students who have not taken high school physics.

5. College success for science, computer, engineering, and premedical majors depends on taking physics.

College-level physics is a required course for all of these majors. Engineering is almost entirely applied physics. Pre-med majors are typically required to take the same number of physics classes as they are of basic biology classes! 33% of the science knowledge required for the Medical College Admission Test (MCAT) is physics-based.

College physics classes for freshman often have 200 or more students in the same auditorium and are therefore very impersonal. They move at a fast pace and have a high failure rate. Most colleges require students who haven't taken high school physics to take introductory-level physics classes before they can take normal-sequence physics classes.

Studies indicate that high school physics helps significantly to reduce the failure rate in college-level physics. These studies suggest that students taking a high school physics course score, on average, about one letter grade higher in college physics than students with no high school physics background. Students themselves typically indicate that high school physics is a significant factor in their ability to handle college-level physics material.

6. Physics classes hone thinking skills.

Physics is one of the few high school level classes that exercises both mathematical and verbal skills. All problems in physics are word problems that require students to think logically, use analogies, and deal with subtle shades of meaning. Physics is the only course where good performance correlates with both high verbal and high



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math PSAT scores. Physics teaches students to think, which is a very valuable skill apart from the knowledge content of physics. The law school entrance exam (LSAT), for example, requires no particular content knowledge, but 67% of an applicant's score depends on answering logical reasoning and logic game questions.

7. The job market for those skilled in physics is strong.

Engineers are applied physicists and comprise the second largest profession in America (second only to teaching) with about 1.4 million members. By comparison, there are about 500 thousand medical doctors and only around 100 thousand biologists. However, even medical doctors and biologists have to take college-level physics courses. Knowledge of physics is a prerequisite for many forms of professional employment.

8. Knowledge of physics is needed to truly understand music, art, and literature.

Physics is the science that deals with sound. It is impossible to understand how musical instruments work or to build a theory of music without using physics. Einstein, for instance, was an accomplished violinist. Physics is also the science of light. What is more basic to an understanding of art? Leonardo da Vinci was not only a great artist but also an outstanding physicist, one of the first to develop a wave theory of light.

Physicists, in turn, have been influenced by literary figures. The physics term quark was taken from James Joyce and the term boojums from Lewis Carroll. Similarly, many common expressions in our everyday language come from physics. These include quantum-leap, freefall, light years, black holes, resonance, and wavelength.

Many authors use allusions to physics in their works. William Faulkner, for instance, used the symbolism of time dilation in *The Sound and the Fury*. John Updike and a host of other poets have used physics metaphors in their work. The arts and humanities cannot be fully understood without a good background in physics.

References

- 1) The AAMC's Academic Medicine Web Site, Association of American Medical Colleges
- 2) "Academic backgrounds and achievement in college physics," Gerald Hart and Paul Cottle, *The Physics Teacher*, 1993, pages 470-475.



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3) ChronoNet, the electronic Voice of the Medical Student and Applicant, (This is an excellent source for aspiring doctors. It contains a very helpful discussion on getting into medical school.)

4) "Counseling physics students: a research basis," B. J. Alters, The Physics Teacher, 1995, pages 413-415.

5) The Creative Brain, Ned Herman, Brain Books, North Carolina, 1990, ISBN: 0-944850-01-4

6) General Information on Admission to U.S. Medical Schools, Association of American Medical Colleges

7) Kaplan's Law Zine: Kaplan test preparation organization.

8) The Law School Admissions Council (LSAC or Law Services). Law Services administers the Law School Admission Test (LSAT).

9) Medical College Admission Test (MCAT), Association of American Medical Colleges

**10) 1996-97 Occupational Outlook Handbook, Bureau of Labor Statistics,
<http://stats.bls.gov:80/ocohome.htm>**

11) "Physics Language and Literature", Frieda A. Stahl, The Physics Teacher, March 1997, pages 143-145.

**** (borrowed from http://www.csun.edu/~gsi05670/for_parents/why_take_physics.htm)**