



Integrated Physics and Chemistry - Course Syllabus 2021-2022

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Course Description

This course provides opportunities for students to engage in the investigation and application of the Physical Sciences to include both Chemistry and Physics. The blended nature of this course emphasizes the interdisciplinary nature of science and its role in answering questions about the natural and designed world. Chemistry and Physics concepts are investigated through laboratory experiences designed to promote and develop appropriate skills in scientific inquiry. Successful completion of this course earns one required Science credit. (Prerequisite: Algebra I)

Goals for Student Learning & Course Outline

- Conservation of Energy and Waves
 - Lab safety, Types, transformation and conservation of energy, Waves transfer energy: mechanical waves and sound
- Conservation of Matter
 - Periodic table, Chemical Properties, Chemical Reactions, balancing equations, bonding, metal reactivity
- Forces and Newton's Law
 - Types of forces, gravitational force, Newton's Laws, finding the sum of the forces
- Conservation of Momentum
 - Conservation of momentum and collisions, elastic and inelastic collisions
- Electricity
 - Coulomb's Law, electric fields, electricity, circuits
- Intermolecular Forces
 - Bonding, molecules with polarity, intermolecular forces, physical properties of substances
- Magnetism and Motors
 - Magnetic fields, electric fields, and how they interact
- The Electromagnetic Spectrum
 - Light/particle wave duality, electromagnetic spectrum, electron emission spectra, ionization energy
- Thermodynamics and Equilibrium
 - Collision theory, endothermic and exothermic reactions, bonds and bond energy, equilibrium, LaChatelier's principle
- Nuclear Chemistry
 - Conversion of mass, subatomic particles, nuclear reactions, release of energy

Wear Your Mask Correctly



DO NOT wear your mask below your nose.



DO wear your mask above your nose and below your chin.



cdc.gov/coronavirus

HCPS Grading Policy

| Examples of Product, Process, and Practice | | |
|--|--|--|
| PRODUCT (50%) <i>Culminating Demonstration of Knowledge</i> | PROCESS (30%) <i>Addressing Specific Short-Term Learning Outcomes</i> | PRACTICE (20%) <i>Building Attitudes, Habits, and Skills</i> |
| Does it measure how well students achieved specific learning goals, standards, and/or competencies? | Does it provide feedback to students regarding growth towards the attainment of specific learning goals, standards and competencies? | Does it allow students to practice skills and/or reinforce content learning? |
| <ul style="list-style-type: none"> • Cumulative tests • Unit tests • Vocabulary and other quizzes | <ul style="list-style-type: none"> • In class labs • Graded classwork assignments | <ul style="list-style-type: none"> • Homework • Vocabulary practice • Various classwork practice for completion |

****Extra credit will not be given for non-academic purposes. If extra credit is offered, it will only be offered to the entire class and never just to an individual****

Absent Work Policy

All assignments should be submitted on time. Students will be given the number of class periods equal to the number of lawful class periods absent to turn in completed make up assignments without penalty. If a student is unlawfully absent, work will be accepted with a penalty of one letter grade off the assessed value. Work not submitted by following class then falls under the **Late Work Policy**.

Late Work Policy

All assignments should be submitted on time in order to earn full credit. Any assignment, (*product, process, or practice*) will be allowed to be turned in late for one letter grade deduction from the grade a student earns on the assignment. In order to earn credit for late assignments, students must submit assignments by the end of the day on Wednesday (except for the last week of the quarter) following the designated HAC update. Students are only able to submit assignments that have an established due date within the grading window before the designated HAC update. Assignment that are turned in for late credit will be identified by a footnote in HAC to include a statement about the deduction of a letter grade due to the lateness of the assignment.

| Grading Window | Designated HAC Update | Late Work Due Date |
|---------------------------|-----------------------|---------------------|
| September 8- September 24 | September 24 | September 29 |
| September 27- October 13 | October 13 | October 20 |
| October 14- October 29 | October 29 | November 5 (Friday) |
| November 8- November 19 | November 19 | November 24 |
| November 22- December 10 | December 10 | December 15 |
| December 13- January 13 | January 13 | January 21 (Friday) |
| January 24- February 11 | February 11 | February 16 |
| February 14- February 25 | February 25 | March 2 |
| February 28- March 11 | March 11 | March 16 |
| March 14- March 25 | March 25 | March 31 (Thursday) |
| April 1- April 22 | April 22 | April 27 |
| April 25- May 6 | May 6 | May 11 |
| May 11- May 20 | May 20 | May 25 |

Cell Phone Policy

- Students will place their cellphones in a teacher designated area as they enter each classroom. Teachers will review with students the specific location for each room. The phones will remain in the teacher designated area unless teachers explicitly tell students to take out the phones for instructional use.
- Cellphones will remain in the teacher designated area during bathroom visits, assemblies and trips to the nurse/counseling office/main office.
- Cellphones will be retrieved from the teacher designated area at the end of class at the direction of the teacher.
- School-appropriate cellphone use is permitted during class changes and lunch. Students are not permitted to make phone calls during school hours.
- If the cell phone policy is violated, it is a referable offense.

Classroom Rules and Procedures:

- No headphones, ear buds etc. in use while in the room. Remove before entering the room.
- Laptops will be used daily, be sure to have yours and that it is charged.
- Pay attention to when your laptop should be open and when it should be closed so that you may hear instruction
- Bathroom / water breaks: ask first, if the time is appropriate, you will sign out on a clip board, get a pass signed and then go. Sign back in upon returning to the room.

Academic Integrity

Academic integrity is taking responsibility for the quality and completion of one's own work.

Academic dishonesty is taking someone else's work and claiming it as one's own. Students at Bel Air High School are responsible for knowing what is considered to be Academic Dishonesty and the subsequent consequences. More information can be found in the BAHS Student Planner.

Useful Links:

- www.hcps.org
- www.myBAHS.com
- www.portal.hcps.org (for at-home Office365 & OneDrive access)
 - Username: firstnamelastname@student.hcps.org
 - Password: same as your school login
 - (Automatically logged in while on a school computer)



Bel Air High School
Digital Teaching and Learning (DTL)
Virtual Learning Expectations and Norms

It is important to remember that the virtual classroom, while different from a face-to-face classroom setting, remains a classroom; subsequently, standards of professional behavior and expectations for polite interactions still exist.

“Good netiquette means conducting yourself in an online class with the same respect, politeness and professionalism that you would exhibit in a real-life classroom.” – Erin Lynch, Senior Educator at Test Innovators

All BAHS students are expected to adhere to the following expectations during online instruction.

Expectations for How to Communicate during Online Instruction

Remember: Human beings are on the other side of your written communication.

- ✓ **When communicating electronically, whether in the “chat,” through email, as part of a discussion post, in a shared document, or by some other method, your written words are read by real people, all deserving of respectful communication.**
 - Before you press "send" or "submit," pause and ask yourself, "Would I be okay with this if someone else had written it?" or “Would I be okay if someone said this to or about me?”
 - If your teacher incorporates a discussion board into a lesson, be cautious about attempts to use humor. Do not write anything that could be perceived as angry or sarcastic; without hearing the tone of your voice or being able to see your facial expressions, your peers might not realize you are joking.
 - Keep your posts appropriate to the assignment, polite, and kind.
 - Avoid posting anything in the “chat” during a Teams meeting unless directed to do so by your teacher.

- ✓ **Represent yourself professionally when communicating “verbally” (i.e. discussion boards, electronic chat, Socratic discussions, etc.).**
 - Know what you are talking about and state it clearly.
 - Be pleasant and polite.
 - Do not “YELL!!!” by using all caps or multiple exclamation marks, even if you disagree with what someone has written.
 - Be mindful of your use of emojis.
 - Check for spelling and grammar errors.

- ✓ **Present yourself professionally when communicating electronically.**
 - Make sure you are appropriately clothed.

- Remember: Even though you are at home when participating online, you are still involved in a classroom setting and should therefore wear clothing appropriate for a school environment.
 - For example, it would be inappropriate for you to be on camera in a bathing suit, even if you happen to be sitting outside at a pool.
 - Rule of thumb: If what you are wearing is not something that would be appropriate for you to have on while interacting with your teacher during a normal school day, do not wear it while on camera.
 - Be mindful of messaging on clothing, hats, or headwear.
 - We will adhere to HCPS specifications and BAHS expectations in this matter. Displaying language, images, symbols, or messaging that does not follow HCPS guidelines or meet BAHS's standards of professionalism as specified in our *Habits of Success* will not be allowed.
- ✓ **Be aware of your physical surroundings (i.e. your environment) when communicating electronically.**
- Think about what is on your walls and/or in your background. Displaying language, images, symbols, or messaging that does not follow HCPS guidelines will not be allowed.
 - Let other people in the household know when you are online and communicating with your camera and/or mic on. You do not want to inadvertently catch someone off guard.
 - Eliminate environmental distractions.
 - Turn off or mute your cell phone.
 - Turn off the TV and/or radio to minimize background noise.
 - Clear the room of noisy pets.
 - Keep your mic muted unless directed by your teacher to participate verbally.
 - Try to find a space such as a kitchen table, a countertop, or a desk from which to work; avoid having your camera on while lying in bed.

Expectations to Meet when Submitting Work Electronically

- ✓ **Teachers will be evaluating and assessing many pieces of students' work, so be sure to adhere to the submission guidelines set by each of your teachers, including**
- where completed work should be submitted.
 - Ex. If a teacher directs you to submit an assignment via Itslearning, do not send it as an attachment in an email.
 - the type of document to submit.
 - Ex. If a teacher asks for a power-point, do not submit a word document.
 - the naming conventions as specified in the assignment.
 - Ex. If a teacher directs you to name an assignment "DBQ #1," do not submit an assignment saved as "My Work."

- Work that does not follow submission guidelines may require resubmission to meet the assignment’s specifications, which can cause a delay in assessing, grading, and providing feedback.

Expectations to Meet when Communicating Electronically with School Personnel (teachers, counselors, support staff, administrators)

- ✓ **Use HCPS Student Email Only**
 - When it is necessary to send an email, email directly through your HCPS-student account. Students should not initiate communication with teachers via personal emails.
- ✓ **Include Course/Period (Ex: English 10/2A) in the subject line of the message.**
 - Failing to use your HCPS account and/or include **Course/Period** in the subject line may delay or prevent a response.
- ✓ **Adhere to the following writing standards**
 - Begin all email correspondence with an appropriate greeting/salutation.
 - Ex: *Hi, Ms. Jones,*
 - Tone is easily misunderstood in electronic exchanges; skipping this step can make your email sound unintentionally rude.
 - Provide some context for the purpose of your email.
 - Ex: *I’m emailing you because I can’t remember how to submit my assignment on Itslearning.*
 - Teachers will need this context to provide you a specific response.
 - Make sure that your questions are direct but politely worded.
 - Ex: *Can you please remind me where I can find these directions?*
 - If your questions are too vague, your teacher will not be able to determine how to help you.
 - End your email with an appropriate closing.
 - Ex: *Thank you for your help.*
 - Skipping this step can make your email sound too curt or demanding.
 - Include your name after the closing.
 - Ex: *John Doe*
 - Proofread and spell check before you hit “send.”

Sending an email with multiple typos is unprofessional and can interfere with the clarity of your message, as can use of abbreviations and slang. Email communication with school personnel is not synonymous with posts on social media such as Twitter or Snapchat. Punctuation matters. Capitalization matters. Formal language matters. Use these writing conventions consistently and purposefully, just as if you were communicating with your boss in a workplace setting.

Reminders about Your Digital Footprint

- ✓ Remember: Your account can be traced back to you easily, even if you post under an alias or a made-up handle. You leave data footprints whenever you are online. HCPS's Office of Technology can identify when you log on and off, when you access or open a folder or document, and when you submit an item. This data is all stored and can be retrieved.

Reminder about Academic Integrity

- ✓ Academic integrity is of the upmost importance whether you are learning in a traditional face-to-face environment or learning virtually. Please see the full BAHS student handbook for our academic integrity policy.