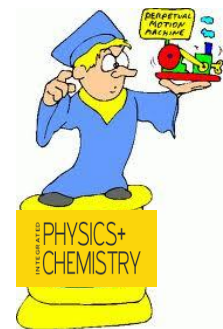




# DeBakey High School for Health Professions

## IPC Syllabus 2020-2021



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<b>Tutorials:</b>	Tuesday and Thursday 3:30 – 4:30 PM	Tuesday and Thursday 3:30 – 4:30 PM
<b>Conference Time:</b>	Period B1 by <u>appointment ONLY</u>	Period B1 by <u>appointment ONLY</u>

### Course Description:

Pre-Advanced Placement Integrated Physics and Chemistry is designed to introduce ninth grade students to the basic concepts of Chemistry and Physics. Students will begin by reviewing math skills and the metric system, and how to convert units within the metric system. As part of the introduction to Chemistry, they will learn to distinguish between physical and chemical properties and changes, subatomic particles, elements, compounds and the periodic table, reactions and balancing equations. Physics concepts involve motion, forces, energy and power with an emphasis on the mathematical relationships. IPC is a laboratory-oriented course. Concepts will be developed through hands-on investigations, measurements, observations, and manipulation of various phenomena.

By keeping an open communication and closely working together, we will achieve our goals of excellence. I hope you find this course intellectually challenging and fun. For more details, visit <https://houstonisd.org/hub> and your Student Handbook.

### Course Overview and Approximate Timeline:

Cycle 1	Cycle 2	Cycle 3
<p><b>Scientific Method, Measurement, Safety</b> This unit focuses on the scientific processes, data collection/communication, and safety skills that the students are expected to master and practice during the course.</p> <p><b>Motion and Forces</b> Relationship between mass, motion, forces, and momentum in various activities and equipment such as toys, vehicle restraints, sports, etc. Gravitational and Electric Forces between objects of different masses and distances including satellites.</p>	<p><b>Work and Simple Machine</b> In this unit, students learn about simple and compound machines and how they change forces to make work easier.</p> <p><b>Energy</b> Forms of energy and its conservation during transformation. The different sources of energy: nuclear, hydroelectric, solar, fossil fuels, and Alternative sources such as wind, geothermal, and current energy research.</p> <p><b>Heat and Temperature</b> Students focus on heat, temperature and investigating heat transfer through solids, liquids and gases by convection, conduction and radiation. In addition, students measure the thermal conductivity of various materials and explain the results</p>	<p><b>Electricity and Magnetism</b> This unit investigates electrical conductivity of various materials, compare series and parallel connections, and the relationship between electric current and the strength of its magnetic field.</p> <p><b>Waves</b> The focus of this unit is on the nature and behavior of mechanical and electromagnetic waves including acoustic, seismic, light, and waves on water as they propagate and interact with other materials.</p>
Cycle 4	Cycle 5	Cycle 6
<p><b>Structure and Properties of Matter</b> Physical and chemical of solids, liquids, and gases such as density, viscosity, buoyancy in relation to the arrangement, forces, &amp; motion between particles.</p> <p><b>Structure of the Periodic Table</b> Arrangement of the elements in the PT; classification, chemical &amp; physical properties of metals and non-metals.</p>	<p><b>Bonding and the Periodic Table</b> Interactions of valence electrons to form ionic and covalent bonds. Writing and naming chemical formula</p> <p><b>Changes in Matter</b> Physical and chemical changes Chemical reactions Balancing chemical equations Conservation of mass and energy</p>	<p><b>Solutions</b> Students investigate the properties of solutions and factors such as temperature, pressure, pH, and concentration that affect solubility.</p> <p><b>Nuclear Chemistry</b> Nuclear reactions: fusion and fission and their roles and applications in medicine, energy production, and environment.</p>

**e-TEXTBOOK:** Texas Integrated Physics and Chemistry 2015 (Texas Edition) McGraw Hill

Access through the HUB under DIGITAL RESOURCES

→ login with ACTIVE Directory

→ then search IPC

## Grading System:

<b>40%</b>	Tests and Quizzes
<b>40%</b>	Labs, and Projects
<b>20%</b>	Daily Work
<b>100%</b>	

Regularly check your grades, absences, teacher emails, upcoming events, etc. on the HUB.

**Other useful website:** detailed instructions on the HUB

- Microsoft TEAMS
- [www.remind.com](http://www.remind.com)

Send text message "class code" to **81010** or email

"classcode" @mail.remind.com

## Classroom rules and norms:

1. Be on time, in your seat/laptop and ready to work.
2. Raise hand before speaking or leaving seat; wait patiently.
3. Listen, participate, and stay on task in class.
4. Respect everyone and everything.
5. Follow all rules and instructions. Be safe and responsible.

## Consequences:

- 1<sup>st</sup> offense: Verbal warning, level 1 write up  
2<sup>nd</sup> offense: Personal conference with the teacher; write up  
3<sup>rd</sup> offense: Completion of an action plan, telephone call  
4<sup>th</sup> offense: Teacher Detention, complete or revise action plan  
5<sup>th</sup> offense: Level 3 referral to the principal

## **Materials and Supplies:**

For the digital classroom, you will need only ONE thing: your laptop. All your assignments, labs, quizzes, and exams will take place online through the HUB. It is imperative to check the HUB and Teams regularly for daily announcements and assignments. We will also be using the ONENOTE Class Notebook to take notes and keep track of your homework and other class activities/assignments.

## **Assessment/evaluation:**

For tests and projects, at least three school days advanced notice will be given. Quizzes may be unannounced and will be over homework or in-class assignments. Lab reports will be graded. All students should maintain a record of their graded assignments.

## **Tests and quizzes:**

Make sure you are in an appropriate area with minimal distractions – we suggest a desk with a comfortable chair and enough lighting. Graded tests are returned to you when everybody is done for in-class review. You are welcome to further review your tests during tutorials.

For online tests, your score will be displayed after you submit your answers except for the open-ended items which might require the teacher to grade manually.

## **Laboratory Assignments**

Participation in lab is a privilege not a right. Above all else, safety comes first. Therefore, each student is required to read and/or write up the procedures of the lab assignment BEFORE performing the lab. If a student does not complete the pre-lab assignment, then the student cannot participate in that lab activity and the maximum grade for this assignment will be a 70. The student will be given an alternate in-class assignment to work on that day or secondary set data so a written lab report can still be completed.

If a student is removed from the laboratory for misbehavior, that student will receive an automatic zero for the lab grade.

For virtual labs, specific instructions will be indicated in the procedures.

Lab experiments may be done in groups, but lab report is NOT. It is expected that you will share raw data with your partner or groupmates, but all other sections of your report (hypothesis, DATA ANALYSIS, discussion, conclusion, etc) are individual work and will be under Honor Code.

## **Retake/Redo Policy**

If the student fails the mid-cycle test or a project, then the student has an opportunity to retake a similar assessment covering the same topics or redo the project. If the student chooses to participate, then the student is responsible for requesting and scheduling the retake or redo in writing during the class period that the graded assessment and/or class assignment is returned. Retakes must be scheduled with the teacher for outside regular class time. The student must attend one tutorial session before taking the retake of a test.

- For projects, the student must turn in their redo of the project within 5 school days. Once complete, the student's retake/redo grade will be averaged with the original grade for a final assessment / assignment grade of no higher than "70%".
- Upon receipt of a failing teacher-designed test (mid-cycle test only) or project, you may request a retake. The average of the original and the retake will be your mid-cycle test grade up to a maximum of 70%.

Retakes are NOT allowed on end of cycle exams (aka common assessment exams) and final exams.

## **There is no extra credit.**

### **Make Up & Late Work:**

- If you are absent for any reason, you are responsible for the missed work. Check the HUB or with your buddy.
- Late work may be turned in within two school days (following meeting at the beginning of class period) for a maximum grade of 90%. Show up during tutorials for mastery of the assignment up to 75% of the grade but NO late or make up work will be accepted on the day before the next scheduled test.

- Make up assignment is only for excused absences. It must be done and completed within three school days of the absence. If you know you will be absent, arrange to get the upcoming work before you leave.
- If you are absent on the day a prior assignment is due, you must be prepared to hand in the assignment, take the test or quiz the day you return.

#### **Average amount of Homework:**

Students should plan to spend approximately 20 minutes per night (even on the days that class does not meet) reading, reviewing, and answering practice problems from their IPC textbook, notes or other resources to reinforce understanding of science concepts and vocabulary.

***This time should be free from non-educational activities, duties or other distractions.***

Homework **credit** will be given only if the assignment is complete and turned in at the beginning of the class period.

#### **Electronic Usage in Class**

Please note that any electronic usage: tablets, laptops, mp3 players or any other device that uses electricity or batteries, during class is strictly for ACADEMIC use only. Students who have extra electronic device aside from your laptop must be put away or in silent mode to avoid noise or disruption to the learning environment.

#### **Academic Integrity:**

Academic dishonesty includes but not limited to copying the work of another student, advising/assisting students about the contents of a quiz or test, consulting the web, notes, or grading keys, and unauthorized communication between students during an exam or quiz. Cheating will not be tolerated in any form. You are expected to earn your grade by doing your own work and be accountable for your own learning. Review and abide all the district policies especially the **DeBakey Honor Code** and cheating/dishonesty policy.

You will be informed when group collaborative work is expected on an assignment. For every assignment turned in, you agree and electronically sign the HONOR STATEMENT:

*This is especially important for digital learning. Any breach of the honor code will result in immediate disciplinary action.*

On my honor, I have neither given nor received any unauthorized aid on this exam/quiz/paper/lab report.
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#### **Additional Information:**

The complete Texas Essential Knowledge & Skills (TEKS) document, which was approved by the Texas State Board of Education, may be found at [www.tea.state.tx.us/teks](http://www.tea.state.tx.us/teks). The HISD Science Curriculum is available on the district website at [houstonisd.org/hub](http://houstonisd.org/hub)

#### **Student Keys to Success:**

- Paying full attention in class, taking good notes and reviewing them daily
- Daily practice of previously learned concepts and working on a regular basis to learn new concepts
- Working on homework assignments seriously and being prepared to ask specific questions when the assignment is reviewed in class
- Reviewing all quizzes and homework problems before an exam and making sure that these problems can be worked successfully without assistance

#### **Tutorial/Extra Help/Conference:**

Students will have opportunities to attend tutorials outside of the school day. Details will be announced in class. I am available for tutorial Tue and Thu after school or by appointment only. If at any time you or your parents would like to discuss your progress, please request an individual conference by sending an email to: [mmagampo@houstonisd.org](mailto:mmagampo@houstonisd.org)

Thank you and have a fruitful year!

STUDENTS: [Click this link to fill out the STUDENT Info & Syllabus Agreement Form](#)

PARENTS: [Click this link to fill out the PARENT Syllabus Agreement Form](#)